

FISCAL YEAR 2002: The requested amount will be applied as follows:

*Partially reimburse sponsor for 4 <sup>th</sup> Renourishment Delray Beach	165,000
Construction Management	<u>35,000</u>
Total	200,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Palm Beach County, Florida, General Design Memorandum, Addendum for Delray Beach segment, the non-Federal sponsor must comply with the requirements listed below. The initial LCA for the Delray Beach segment was executed on January 23, 1973. The PCA which allows Federal cost sharing until 2023 was executed in September 1992.

Requirements of Local Cooperation (Delray Beach Segment)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 65% of the separable costs for FY 02 and beyond, allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features, up to 50-year limit; thereafter, 100 percent of the project costs.	<u>2,671,000</u>	
Total	2,671,000	

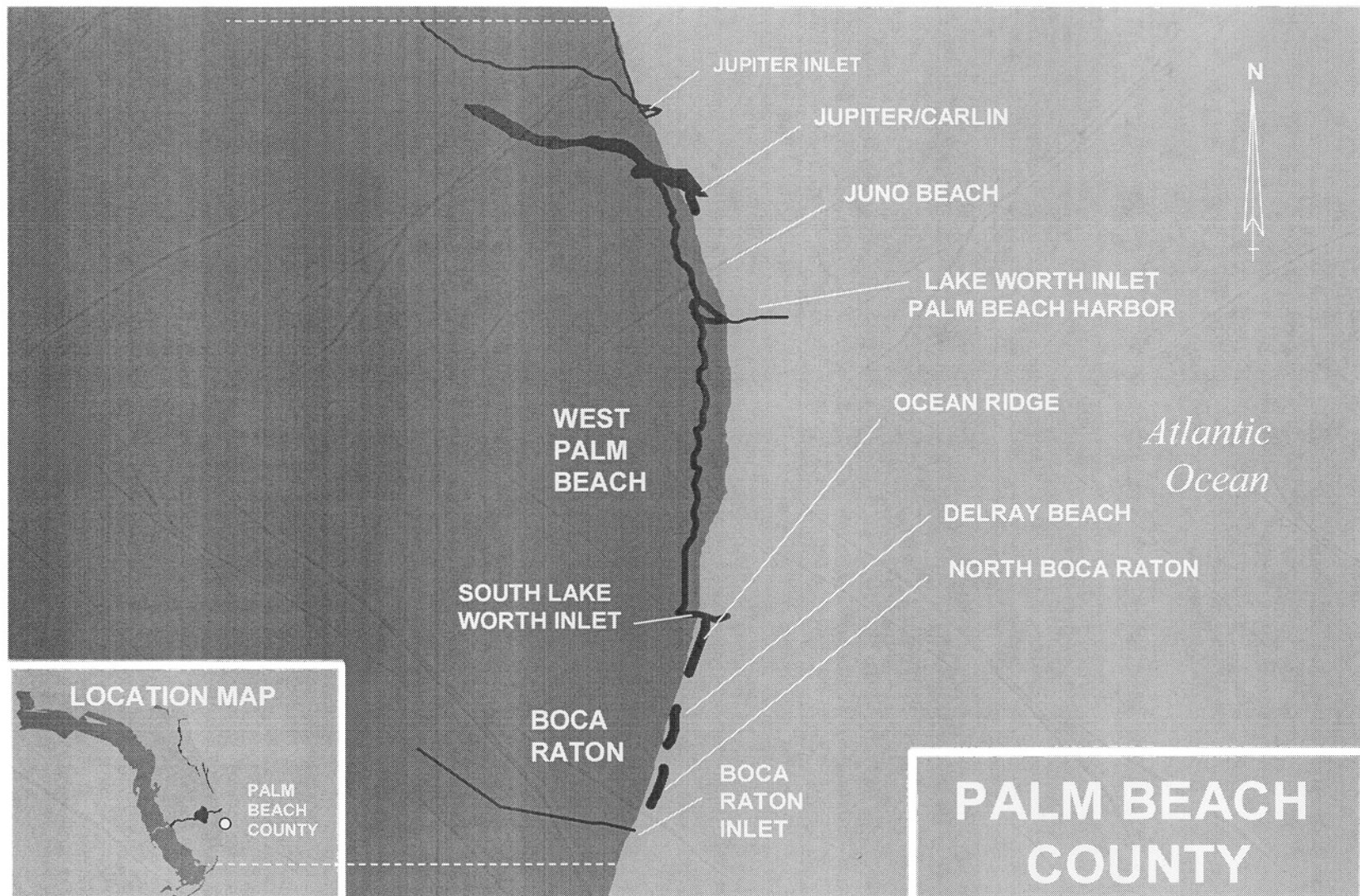
STATUS OF LOCAL COOPERATION: An initial Local Cooperation Agreement was executed in January 1973 for the Delray Beach segment. Federal participation in cost sharing was extended to 50 years based upon Section 934 of WRDA 1986. A PCA amendment will be executed to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment (35% Federal, 65% non-Federal) before the FY 02 periodic nourishment is performed. The current non-Federal cost estimate of \$207,600,000, is an increase of \$26,000,000 from the non-Federal cost estimate of \$181,600,000 based on changes in projected rates of inflation, reanalysis of requirements to reflect current and projected levels of expenditures and the cost share increase from 50% to 65%.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$59,000,000 reflects a decrease of \$26,000,000 from the latest estimate (\$85,000,000) presented to Congress (FY 2000). This change includes:

Item	Amount
Change in cost share	<u>-26,000,000</u>
Total	-26,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A county-wide GDM and EIS were prepared in 1987. An Environmental Assessment (EA) was prepared for the third periodic nourishment in 1992.

OTHER INFORMATION: Reimbursement of the Federal share of eligible costs for renourishment will be based upon review of the engineering and design, contract documents, and an audit following contract completion.



APPROPRIATION TITLE. Construction, General - Beach Erosion Control

PROJECT: St. Johns County, Florida (Continuing)

LOCATION: St. Johns County is located about 100 miles south of the Florida/Georgia border. The beach erosion control project itself is located at the City of St. Augustine Beach. The project area lies along a 2.5-mile stretch of shoreline, beginning approximately 14,500 feet south of the St. Augustine Inlet.

DESCRIPTION: The project as authorized provides for initial restoration of a protective beach to a width of 60 feet. Since the time of its authorization in 1986, the St. Johns County Beach Erosion Control Project shoreline has continued to deteriorate. At the north project limits, a revetment along Anastasia State Park has been flanked and is currently underwater during the majority of the tidal cycle. The city of St. Augustine Beach has found it necessary to construct a return wall along approximately 800 feet of shoreline fronting its government offices to relieve flooding due to overtopping during storm events. There is essentially no dry beach fronting the rock and rubble revetments along the majority of the project shoreline. Along the south portion of the project area, flanking of the revetment has been accompanied by near vertical scarp of the shoreline which has receded landward to within approximately 30 feet of some of the upland development. The project as designed would mitigate for impacts resulting from the Federal navigation project at St. Augustine Inlet and provide storm damage prevention benefits to the upland development. Congress appropriated funding in Fiscal Year 1994 to prepare an economic update of the project. A favorable Economic Update Report for the St. Johns County, Florida Beach Erosion Control Project was approved 24 March 1995. Following the Economic Update, a General Reevaluation Report (GRR) was approved by HQUSACE November 1998 and by ASA(CW) 15 December 1998. A Project Cooperation Agreement was executed 24 August 2000.

AUTHORIZATION: Water Resources Development Act of 1986, Section 501(A).

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 6 7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 6 7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 6 7/8 percent.

BASIS OF BENEFIT-COST RATIO: Basis for the benefit-cost ratio is the General Reevaluation Report (GRR) with final Environmental Assessment for the St. Johns County, Florida Shore Protection Project dated March 1998, at 1998 price level.



SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		87,900,000		Beach Replenishment		
Initial Construction	16,513,000			Initial Fill	0	Jan 2002
Periodic Nourishment	71,387,000			Periodic Nourishment	0	Being Determined
Estimated Non-Federal Cost		141,500,000		Entire Project	0	Being Determined
Initial Construction	8,891,000					
Periodic Nourishment	132,609,000					
Total Estimated Project Cost		229,400,000				
Initial Construction	25,404,000					
Periodic Nourishment	203,996,000					
Allocations to 30 September 2000		2,106,000				
Conference Allowance for FY 2001		4,000,000				
Allocation for FY 2001		4,352,000	1/			
Allocations through FY 2001		6,458,000		3%		
Allocation Requested for 2002		300,000	2/	3%		
Programmed Balance to Complete after FY 2002		81,142,000	2/			
Unprogrammed Balance to Complete after FY 2002		0				

1/ Reflects \$640,000 reduction assigned as savings and slippage, \$1,000,000 reprogrammed to the project, and \$8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001

2/ Reflects 65% non-federal cost share.

JUSTIFICATION: The project, as identified in the General Reevaluation Report (GRR), provides total annual reduction of damages to development of \$4,585,000. Incidental recreation benefits amount to \$216,000. The annual cost is \$2,552,000. The benefit-to-cost ratio is 1.9 to 1.0. Also, the City of St. Augustine Beach allocated \$300,000 for the repair of the existing seawall fronting city-owned property. Highway A1A traverses the project area and is designated as a hurricane evacuation route. Past northeasters have caused considerable flooding and damage to the road, rendering it impassible. A portion of the highway at the north end of the study area was relocated landward due to the severity of the erosion problems. In addition, the construction and subsequent maintenance of the navigation works at St. Augustine Harbor by the Federal government have altered the littoral processes in the vicinity of the inlet. As a result, erosion of the 2.5-mile project area was doubled. Congress, in recognition of the need to mitigate the erosion attributed to the Federal navigation works, authorized increased Federal cost sharing in the shore protection project. Cost sharing for this project is 80.5 percent Federal and 19.5 percent non-Federal. Average annual benefits for the NED plan identified in the GRR are as follows:

Annual Benefits	Amount
Storm Damage Prevention	4,585,000
Recreation Benefits	<u>216,000</u>
Total	4,801,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue initial/advance fill	276,000
Construction management	<u>24,000</u>
Total	300,000

NON-FEDERAL COST: In accordance with the cost-sharing financing concepts reflected in the General Reevaluation Report with Environmental Assessment for the St. Johns County, Florida Shore Protection Project dated March 1998, the non-Federal sponsor must comply with the requirements listed below.

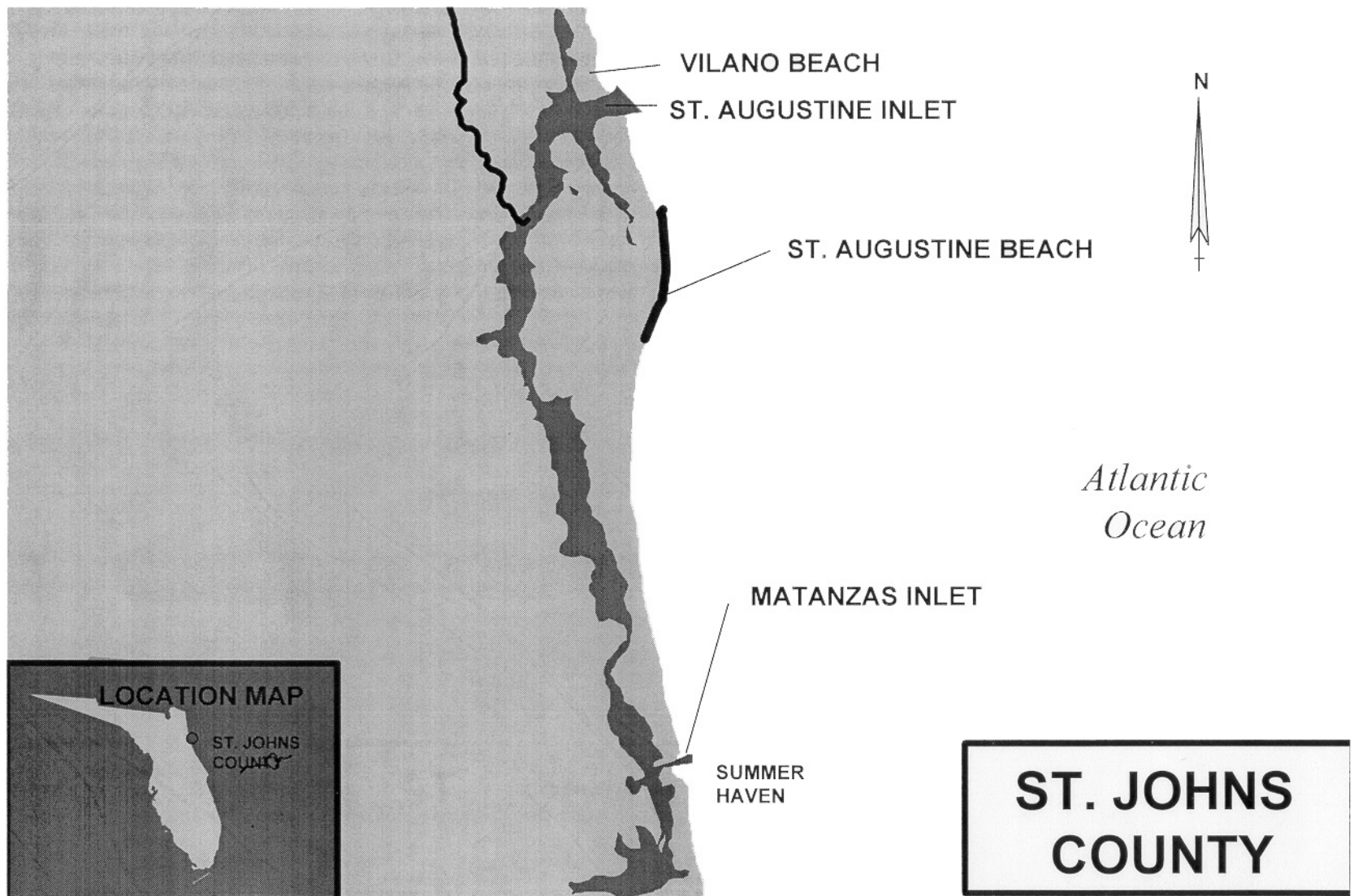
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 19.5 percent of the costs through FY01 allocated to initial fill	450,000	0
Pay 65% of the separable costs for FY02 and beyond, allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	<u>141,050,000</u>	0
Total Non-Federal Costs	141,500,000	0

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 24 August 2000 between the St. Johns County Board of Commissioners and the Federal Government. A PCA amendment will be executed to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment (35% Federal, 65% non-Federal) before the FY 02 periodic nourishment is performed. The current non-Federal cost estimate of \$141,500,000, is an increase of \$96,800,000 from the non-Federal cost estimate of \$44,700,000 based on changes in projected rates of inflation, reanalysis of requirements to reflect current and projected levels of expenditures and the cost share increase from 50% to 65%.

COMPARISON OF FEDERAL COST ESTIMATES: Initial estimate submission; therefore, no comparison applicable.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT (EIS): A final EIS was prepared and included in the Feasibility Report for the St. Johns County Beach Erosion Control Project, which was subsequently authorized in the Water Resource Development Act of 1986. An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) is included in the GRR approved by ASA(CW), 15 December 1998.

OTHER INFORMATION: FY 2001 funds are being used to complete the preparation of plans and specifications and initiate construction. FY 2002 funds will be used to continue construction of the project.



APPROPRIATION TITLE: Construction, General - Shore Protection

PROJECT: Brunswick County Beaches, NC - Ocean Isle Beach Portion (Continuing)

LOCATION: The project is located Brunswick County, North Carolina.

DESCRIPTION: The selected plan for Ocean Isle includes a continuous vegetated dune and berm stabilized by periodic nourishment. The dune crown width is 25 feet at elevation 9.5 feet national geodetic vertical datum (NVGD) fronted by a berm having a width of 50 feet at elevation 7 feet NGVD for a distance of 5,150 feet, then a berm having a crown width of 50 feet at elevation 7 feet NGVD for a distance of 6,300 feet, then a berm with a crown width of 25 feet at elevation 7 feet NGVD for a distance of 3,450 feet. The transition on the eastern end will be 700 feet and 1,500 feet on the western end. The beach segment is a total of 17,100 feet in length.

AUTHORIZATION: Flood Control Act of 1966.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 6-7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 6-7/8 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 7-1/8 percent (FY2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the General Reevaluation Report approved May 1998 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$56,340,000		Entire Project	17	Being Determined
Initial Construction	\$9,370,000					
Periodic Nourishment	46,970,000					
Estimated Non-Federal Cost		\$ 90,660,000				
Initial Construction	\$3,430,000					
Cash Contributions	\$2,956,000					
Other Costs	474,000					
Periodic Nourishment	\$87,230,000					
Cash Contributions	87,019,000					
Other Costs	211,000					
Total Estimated Project Cost		\$147,000,000				
Initial Construction	12,800,000					
Future Nourishment	134,200,000					
Allocations to 30 September 2000		\$ 5,226,000				
Conference Allowance for FY 2001		4,200,000				
Allocation for FY 2001		4,192,000	<u>1/</u>			
Allocations through FY 2001		9,418,000		17		
Allocation Requested for 2002		300,000	<u>2/</u>	17		
Programmed Balance to Complete after FY 2002		46,622,000	<u>2/</u>			
Unprogrammed Balance to Complete after FY 2002		0				

1/ \$8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

2/ Reflects 65% non-Federal cost share.

# PHYSICAL DATA

	Elevation	Crown Width	Length
Dune	9.5 feet NGVD	25 feet	5,150 feet
Integral Berm	7 feet NGVD	50 feet	5,150 feet
Berm	7 feet NGVD	50 feet	6,300 feet
	7 feet NGVD	25 feet	3,450 feet
Transition-East	-	-	700 feet
West	-	-	1,500 feet

JUSTIFICATION: The project area has experienced severe property damage and beach erosion as a result of storm surges from northeasters and hurricanes in recent years. The project area currently has an erosion rate of 1.5 feet per year. The estimated value of damageable structures and roads is \$123,000,000 with annual damages without a project of \$8,075,000. The project will also result in economic benefits for improved recreation and navigation. The navigation benefits will result from dredging of Shallotte Inlet to obtain sand for project construction and subsequent beach nourishment operations. Hurricane Hugo caused damages of \$11,600,000 in September 1989. Average annual benefits are as follows:

Annual Benefits	Amount
Hurricane & Storm Damage Reduction	\$1,767,000
Long Term Erosion	519,000
Recreation	353,000
Navigation	55,000
Total	\$2,694,000

FISCAL YEAR 2002: The requested amount of will be applied as follows:

Planning, Engineering, and Design for Oak Island, Caswell and Holden Beaches	\$300,000
Total	\$300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the town of Ocean Isle Beach, North Carolina, as non-Federal sponsor, must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, Including suitable borrow areas and dredged material disposal areas.	\$ 685,000	
Pay 35 percent of the initial construction cost allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities.	2,956,000	\$101,000
Pay 65 percent of the periodic nourishment cost allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities.	87,019,000	101,000
Total Non-Federal Costs	\$90,660,000	\$101,000
The non-Federal sponsor has agreed to make all required payments concurrently with project construction.		

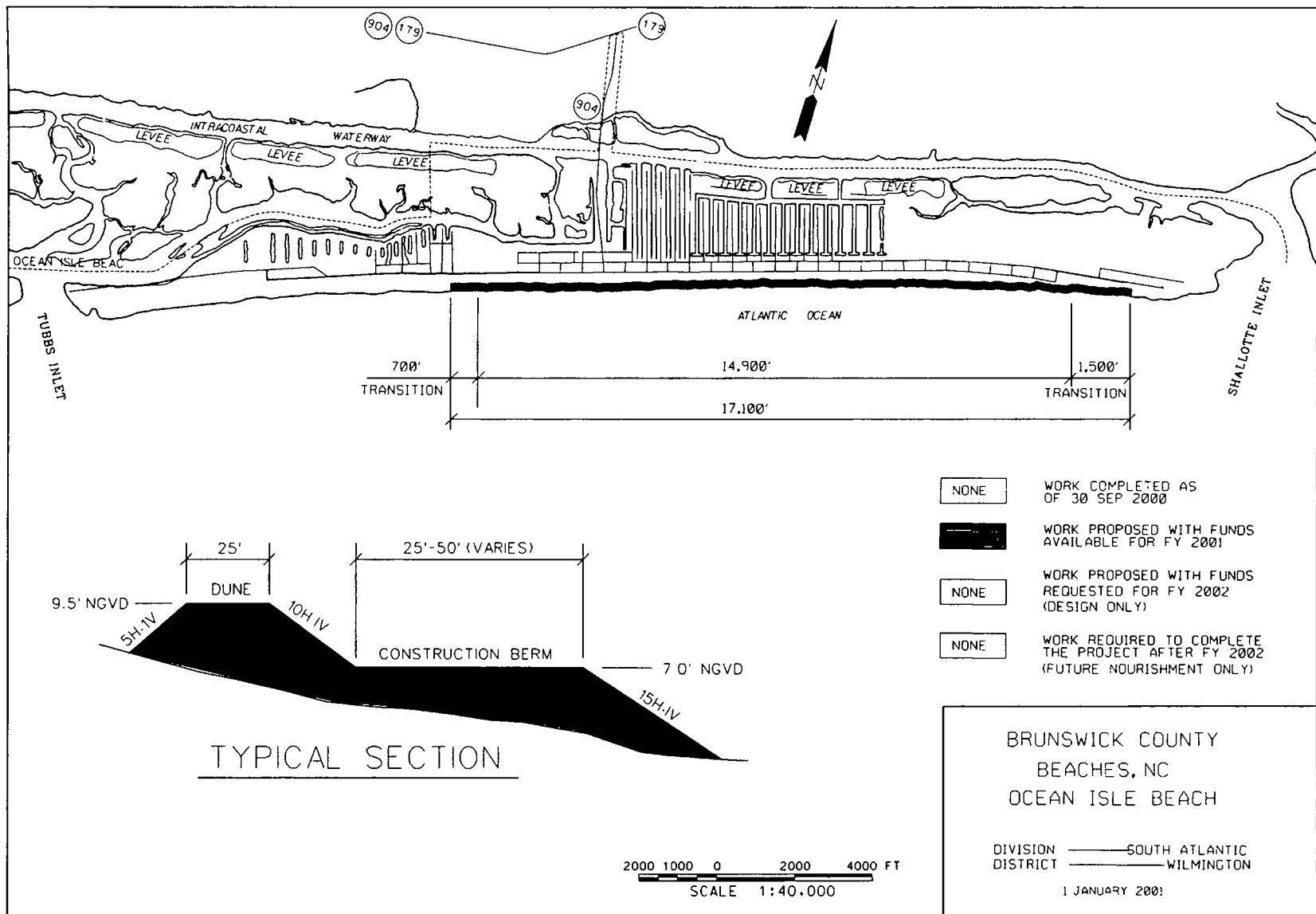
STATUS OF LOCAL COOPERATION: The Town of Ocean Isle Beach is the project sponsor. By letter dated January 17, 1997, the local sponsor agreed to provide the terms of local cooperation and expressed their intent to enter into a project cooperation agreement. The non-Federal share will be provided through local taxes and State contributions. The PCA was executed on 9 January 2001. A PCA amendment will be executed to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment (35 percent Federal, 65 percent non-Federal) before the first periodic nourishment is performed.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$56,340,000 is the initial estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment for Ocean Isle was prepared in June 1997 and a Finding of No Significant Impact was signed by the District Engineer on 1 October 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in fiscal year 1970. The completion of a General Reevaluation Report (GRR) for Oak Island, Caswell and Holden Beaches is being determined.





Division: South Atlantic

District: Wilmington

Brunswick County Beaches, NC - Ocean Isle Beach Portion

3 April 2001

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APPROPRIATION TITLE: Construction, General - Shore Protection

PROJECT: West Onslow Beach and New River Inlet (Topsail Beach), North Carolina (Continuing)

LOCATION: The project is located in the Town of Topsail Beach at the southern end of Topsail Island in Pender County on the central North Carolina Coast. Topsail Island is a barrier island located approximately 40 miles northeast of Wilmington, North Carolina.

DESCRIPTION: The authorized plan of improvement consists of a sand dune constructed to an elevation of 13 feet above mean sea level (MSL), fronted by a storm berm constructed to an elevation of 9 feet above mean sea level and a beach (natural) berm constructed to an elevation of 7 feet above mean sea level along 9,500 feet of shoreline; two transition sections constructed to elevation 7 feet above mean sea level along the southern and northern ends will be included along 2,400 feet and 6,860 feet respectively; and renourishment of the project at approximately two year intervals. The borrow area, located in Banks Channel, will be dredged to a depth of 20 feet below mean low water (MLW) and will be 200 feet wide. The access channel through Topsail Inlet will be dredged to a depth of 17 feet below mean low water. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 8 ½ percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 8 ½ percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 8-1/2 percent (FY 1994)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Chief of Engineers Report dated November 1991 at October 1990 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$83,300,000		Initial Construction	0	Being Determined
Initial Construction	14,300,000			Future Nourishment	0	Being Determined
Periodic Nourishment	69,000,000			Entire Project	0	Being Determined
Estimated Non-Federal Cost		\$134,700,000				
Initial Construction		7,700,000				
Cash Contributions	4,400,000					
Other Costs	3,300,000					
Periodic Nourishment		127,000,000				
Cash Contributions	127,000,000					
Other Costs	0					
Total Estimated Project Cost		\$218,000,000				
Initial Construction	22,000,000					
Future Nourishment	196,000,000					
Allocations to 30 September 2000		\$ 423,000				
Conference Allowance for FY 2001		330,000				
Allocation for FY 2001		276,000	1/			
Allocations through FY 2001		699,000		1		
Allocation Requested for 2002		300,000	2/	1		
Programmed Balance to Complete after FY 2002		82,301,000	2/			
Unprogrammed Balance to Complete after FY 2002		0				

1/ Reflects \$53,000 reduction assigned as savings and slippage and \$ 1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

2/ Reflects 65% non-Federal cost share.

Division: South Atlantic

District: Wilmington

West Onslow Beach and New River Inlet (Topsail Beach), NC

3 April 2001

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Project Dimensions:  
 Shoreline – 18,760 feet  
 Main Fill – 9,500 feet  
 South transition – 2,400 feet  
 North transistion – 6,860 feet

PHYSICAL DATA  
 Berm and Dune Elevation:  
 Dune – 13.0 feet above MSL  
 Storm berm – 9.0 feet above MSL  
 Beach (natural) berm – 7.0 feet MSL

Borrow Area:  
 Access Channel -- 243 acres  
 Width – 200 feet  
 Depth – 17 feet below MLW

JUSTIFICATION: The Town of Topsail Beach has experienced severe beach erosion and heavy property damage as a result of storm surges from hurricanes in 1996 and 1999 and northeasters over the recent years. In addition to property damage these storms have severely damaged or destroyed the primary dune system. The average annual erosion rate is 4.5 feet per year. Topsail Beach is vulnerable to damages of more than \$50 million from a hurricane with a 3.33 percent chance of occurrence in any year. Losses to these structures and related damages would result in a tremendous loss to the Town's tax base. The recommended improvements are essential to the economic welfare of the Town of Topsail Beach. Average annual benefits are as follows:

Annual Benefits	Amount
Hurricane Damage Prevention	\$2,840,000
Recreation	226,000
Total	\$3,066,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design for Topsail Beach	\$ 300,000
Total	\$ 300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, Including suitable borrow areas and dredged material disposal areas.	\$ 3,300,000	
Pay 35 percent of the initial construction cost allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities.	4,400,000	\$100,000
Pay 65 percent of the periodic nourishment cost allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hurricane and storm damage reduction facilities.	127,000,000	100,000
Total Non-Federal Costs	\$134,700,000	\$100,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

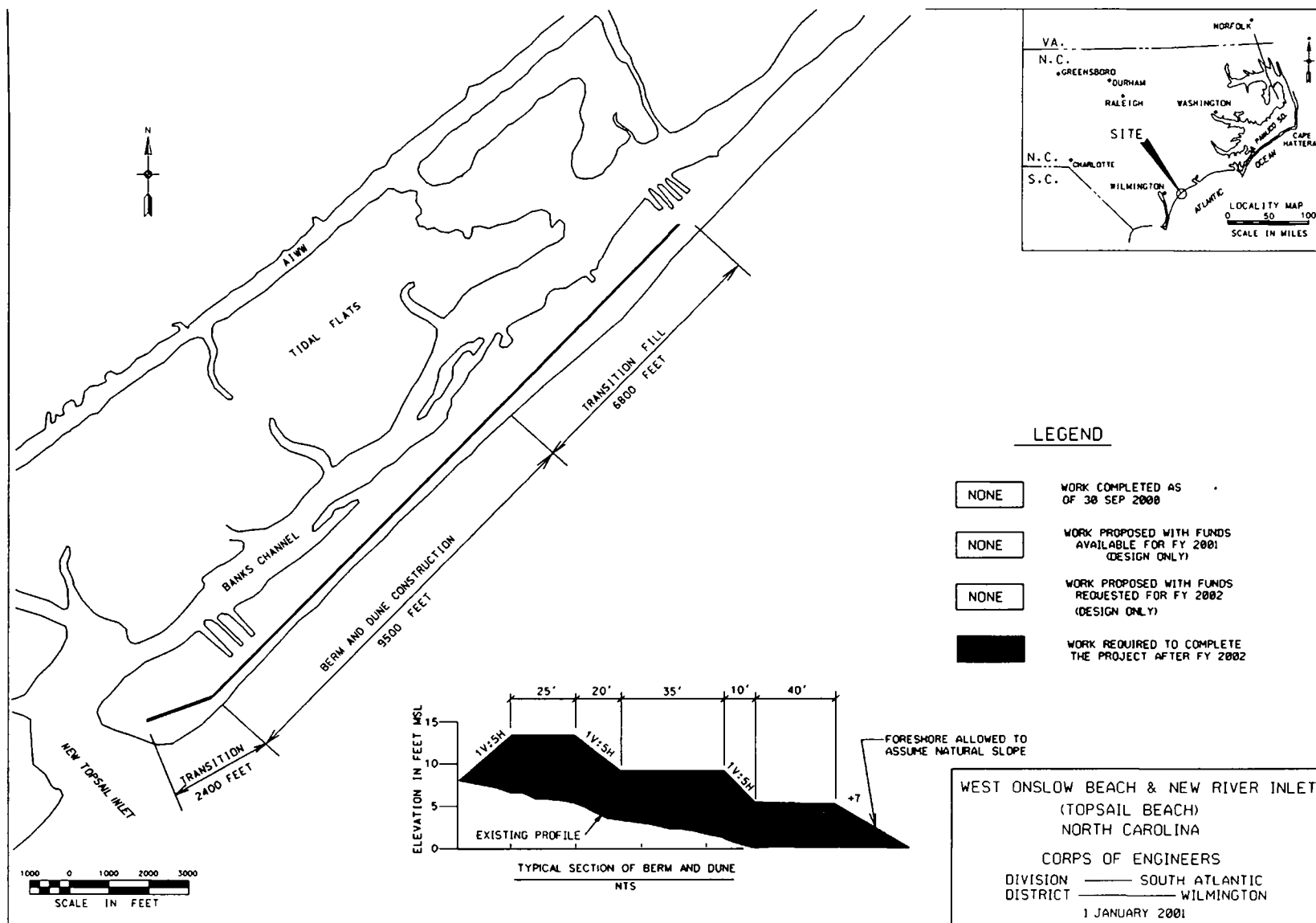
STATUS OF LOCAL COOPERATION: The Town of Topsail Beach, North Carolina, is the project sponsor. The State of North Carolina will provide the primary financial assistance (subject to its own funding restraints) for the project sponsor. The current schedule is to execute the Project Cooperation Agreement (PCA) in April 2002. The PCA will reflect the revision in local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment (35% Federal, 65% non-Federal for periodic nourishment). This project was placed in the inactive category in July 1994 due to lack of local support. Local interests are now able to and would support the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$83,300,000 is a decrease of \$8,500,000 from the latest estimate (91,800,000) presented to Congress (FY 1993). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$51,200,000
Change in Cost Share	-59,700,000
Total	-\$8,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA in February 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1990. This project initially received a new construction start for FY 94; however, the project cooperation agreement was not executed due to the Sponsor's inability to fund their share of the project cost. The cost estimate was updated for price escalation only. The first items to be accomplished with construction funds will be execution of the project cooperation agreement and preparation of a general reevaluation report to redefine the project scope.



Division: South Atlantic

District: Wilmington

West Onslow Beach and New River Inlet (Topsail Beach), NC

3 April 2001

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APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Wrightsville Beach, North Carolina (Continuing)

LOCATION: The project is located on a small island off the southeast coast of North Carolina, approximately 10 miles east of Wilmington in New Hanover County.

DESCRIPTION: The project provides for construction of a dune with a crown width of 25 feet at an elevation of 15 feet above mean low water and a berm with a crown width of 50 feet and a top elevation of 12 feet above mean low water for a distance of 14,000 feet. Federal participation in future nourishment was initially authorized for 10 years but was extended for the life of the project by Water Resources Development Act of 1986. All work is programmed.

AUTHORIZATION: Flood Control Act of 1962 and the Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because initial fill has been completed.

TOTAL BENEFIT - COST RATIO: 1.5 to 1 at 8-5/8 percent.

INITIAL BENEFIT - COST RATIO: 3.5 to 1 at 3.0 percent (FY 1965).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation approved in October 1989 at February 1989 price levels.



SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$16,300,000		Entire Project	28	Being Determined
Initial Construction	\$ 713,000					
Periodic Nourishment	15,587,000		1/			
Estimated Non-Federal Cost		\$25,000,000				
Initial Construction	\$ 345,000					
Cash Contributions	\$ 345,000					
Other Costs	0					
Periodic Nourishment		\$24,655,000				
Cash Contributions	24,655,000					
Other Costs	0					
Total Estimated Project Cost		\$41,300,000				
Initial Construction	\$ 1,058,000					
Future Nourishment	40,242,000					
Allocations to 30 September 2000		\$ 4,609,000				
Conference Allowance for FY 2001		0				
Allocation for FY 2001		0				
Allocations through FY 2001		4,609,000	28			
Allocation Requested for 2002		550,000	2/ 32			
Programmed Balance to Complete after FY 2002		20,359,000	2/			
Unprogrammed Balance to Complete after FY 2002		0				

1/ Based on 50 years of future nourishment. Authorization was for life of project.

2/ Reflects 65% non-Federal cost share.

# PHYSICAL DATA

	Dune	Integral Berm	Feeder Berm
Elevation	15 feet above MLW	12 feet above MLW	12 feet above MLW
Crown Width	25 feet	50 feet	120 feet
Length	14,000 feet	14,000 feet	3,000 feet

JUSTIFICATION: The project provides shore protection from erosion and hurricane flood protection. Wrightsville Beach experienced heavy losses during the hurricanes of 1944, 1954, 1955, 1958, and 1960. It is estimated that recurrence of those hurricanes would cause damages of about \$28,469,000 based on 1982 level of development and 1 October 2000 prices. The improvement will prevent or reduce damages to the beach and property along the beach by providing full shore protection and partial hurricane flood protection from hurricanes of equal or less intensity than that of Hurricane Hazel, provide increased area for recreational use, and increased earning power for shore-front and other property in the affected community. Average annual benefits are as follows:

Annual Benefits	Amount
Hurricane Damage Prevention	\$570,100
Recreation	353,300
Total	\$923,400

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate and Complete Periodic Nourishment	\$ 440,000
Planning, Engineering and Design	70,000
Construction Management	40,000
Total	\$550,000

NON-FEDERAL COST: The actual cost to the Town of Wrightsville Beach, North Carolina, the local sponsor, of complying with the requirements of local cooperation for initial construction and the completed periodic nourishment as set forth in the initial authorizing legislation was \$1,405,000. In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below for the remaining future nourishment.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.		
Modify or relocate utilities, roads, and other facilities, where necessary for the construction of the project.		
Pay 35 percent of the cost thru FY01 allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities.	\$2,978,000	\$4,900
Pay 65 percent of the costs for FY02 and beyond allocated to hurricane and storm damage reduction and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities.	22,022,000	4,900
Total Non-Federal Costs	\$25,000,000	\$4,900

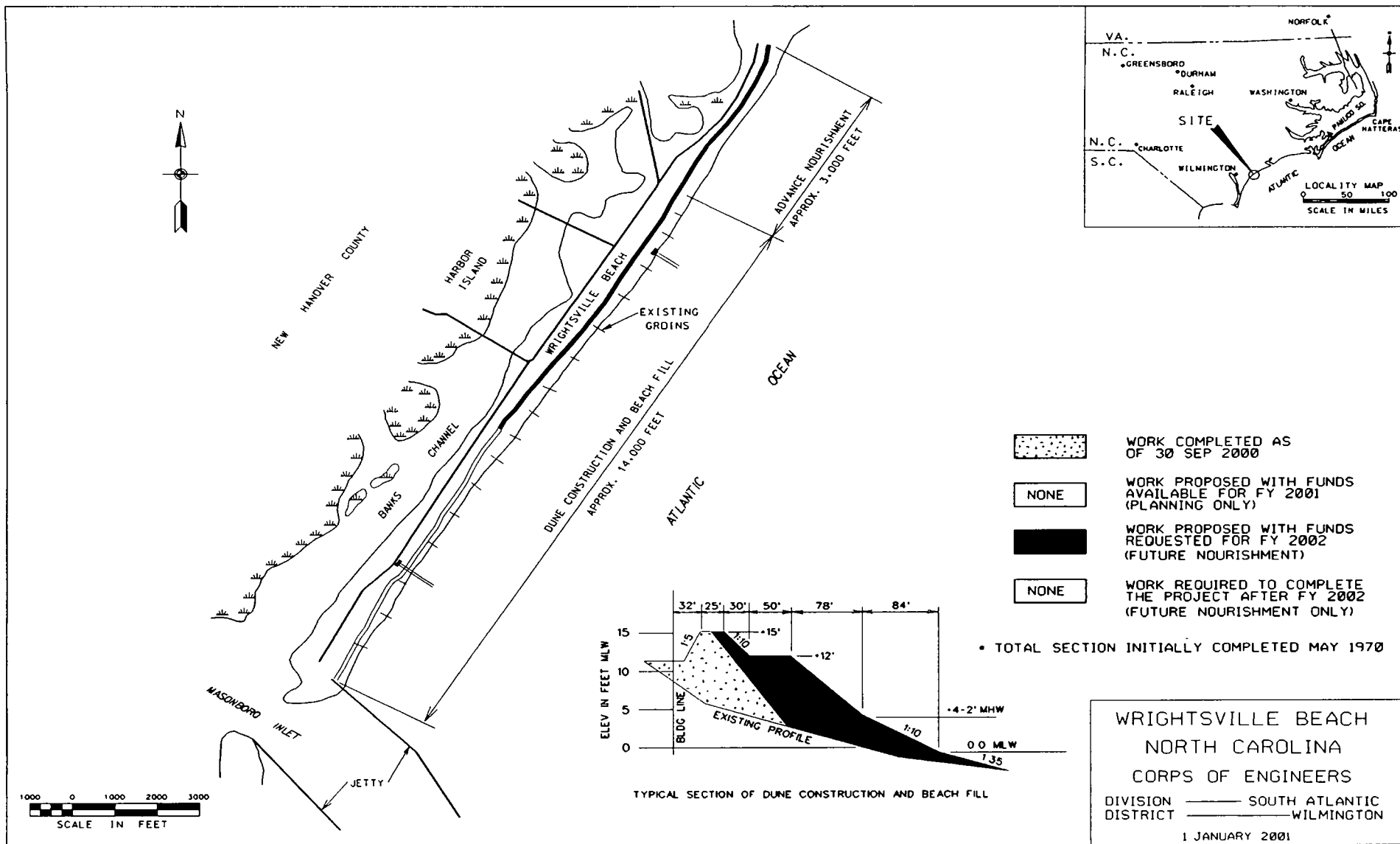
STATUS OF LOCAL COOPERATION: The Town of Wrightsville Beach has complied with all the terms of local cooperation to date including initial construction and future nourishment through FY 1998. On 1 November 1983, a local occupancy tax went into effect in New Hanover County. Seventy-five percent of the revenues collected from this tax must be used for beach erosion control. A local cooperation agreement (LCA) was executed by ASA(CW) on 27 June 1990. A LCA amendment will be executed to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment (35 percent Federal, 65 percent non-Federal) before the FY 02 periodic nourishment is performed.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$16,300,000 is a decrease of \$8,900,000 from the latest estimate (\$25,200,000) submitted to Congress (FY 1998). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$1,380,000
Design Changes	52,000
Post Contract Award and other Estimating Adjustment	-132,000
Change in Cost Share	-10,200,000
Total	-\$8,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact was signed in August 1989.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1965. In accordance with Section 156 of the Water Resources Development Act of 1976 Federal authorization for participation in the initial project was limited to work initiated before the end of calendar year 1980. The 1986 Act authorized future nourishment for the life of the project however, a 50-year period was used for the purpose of preparing a cost estimate.



Division: South Atlantic

District: Wilmington

Wrightsville Beach, NC

3 April 2001

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APPROPRIATION TITLE: Construction, General – Deficiency Correction (Flood Control)

PROJECT: Oates Creek, Richmond County, Georgia (Continuing)

LOCATION: The project originates in the city of Augusta, Georgia and is located entirely within Richmond County, Georgia. The creek is a tributary to Butler Creek that flows into the Savannah River just downstream of the New Savannah Bluff Lock and Dam Navigation Project about 13 miles south of Augusta and 203 river miles above the mouth of the Savannah River.

DESCRIPTION: Oates Creek includes remedial work on the upper and lower earthen channels of the project. The upper channel work (about 1,650 feet) includes regrading the channel, construction of a drop structure in the moderately steep gradient to prevent the headcutting from continuing upstream, and riprapping half of the sideslope of the channel. The lower channel work (about 3,860 feet) includes regrading the design channel configuration by excavating sediment, removing damaged erosion control matting, and placement of a 12-foot-wide concrete pilot channel to contain normal flows. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 1.32 to 1 at 6 7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.13 to 1 at 6 7/8 percent.

INITIAL BENEFIT - COST RATIO: 1.13 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available Deficiency Evaluation Reconnaissance Report dated May 1999 at July 1998 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	2	Being determined
Actual Federal Cost		9,536,000			
Actual Non-Federal Cost		3,027,000			
Cash Contributions	665,000				
Other Costs	2,362,000				
Total Original Project Cost	12,563,000				
Remedial Work or Project Modification					
Estimated Federal Cost		1,672,000			
Estimated Non-Federal Cost		558,000			
Cash Contributions	558,000				
Other Costs	0				
Total Estimated Remedial or Modification Cost		2,230,000			
Total Estimated Project Cost		14,793,000			
Allocations to 30 September 2000		0			
Conference Allowance for FY 2001		332,000			
Allocation for FY 2001		203,000	1/		
Allocations through FY 2001		203,000		12	
Allocation Requested for 2002		632,000		50	
Programmed Balance to Complete after FY 2002		837,000			
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$53,000 reduction assigned as savings and slippage, \$75,000 reprogrammed from the project, and \$1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: South Atlantic

District: Savannah

Oates Creek, Richmond County, GA

3 April 2001

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#### PHYSICAL DATA

##### Upper Earthen Channel:

For a distance of 1,650 feet regrade the channel, construct a drop structure to prevent the headcutting from continuing upstream, and riprap half of the channel sideslope.

##### Lower Earthen Channel:

For a distance of 3,860 feet regrade the design channel grade, remove damaged channel matting, placement of a 12-foot-wide concrete pilot channel, and placement of Geonet fabric on channel bottom to encourage drainage.

**JUSTIFICATION:** The Corps of Engineers, with the city of Augusta, Georgia as local sponsor, completed construction of the Oates Creek Flood Control Project at a cost of \$12,563,000 in 1992. WRDA (1986), authorized the Oates Creek project that included channel widening, concrete lining of two channel reaches, grass lining of two channels reaches, several road and bridge modifications, a small levee, and utility relocations. Just 8 years later, the project is not meeting the design flood protection. Sediment buildup in the earth channel portion of the project is decreasing some portions of the channel capacity from a 10 percent exceedance probability (10-year event) protection to only a 50 percent exceedance probability (2-year event) protection. It is not physically possible to neither safely nor efficiently remove the sediment buildup to maintain design flow. The project is designed to provide protection to about 350 homes and 70 industries in the area.

**FISCAL YEAR 2002:** The requested amount of \$632,000 will be applied as follows:

Initiate Construction	440,000
Planning, Engineering and Design	125,000
Construction Management	67,000
Total	\$632,000



NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation and the Water Resources Development Act of 1986 and 1996, as applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, relocations, and borrow and excavated or dredged material disposal areas.	0	
Provide a cash contribution equal to 5 percent of flood control construction costs. Pay a minimum of 25 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	558,000	35,000
Total Non-Federal Costs	558,000	35,000

STATUS OF LOCAL COOPERATION: Augusta/Richmond County, Georgia is the local sponsor and has provided a letter of intent dated 18 May 1998 to cost share in the project. O&M expenses will be provided by the county's general fund. The Project Cooperation Agreement is scheduled to be executed in July 2001.

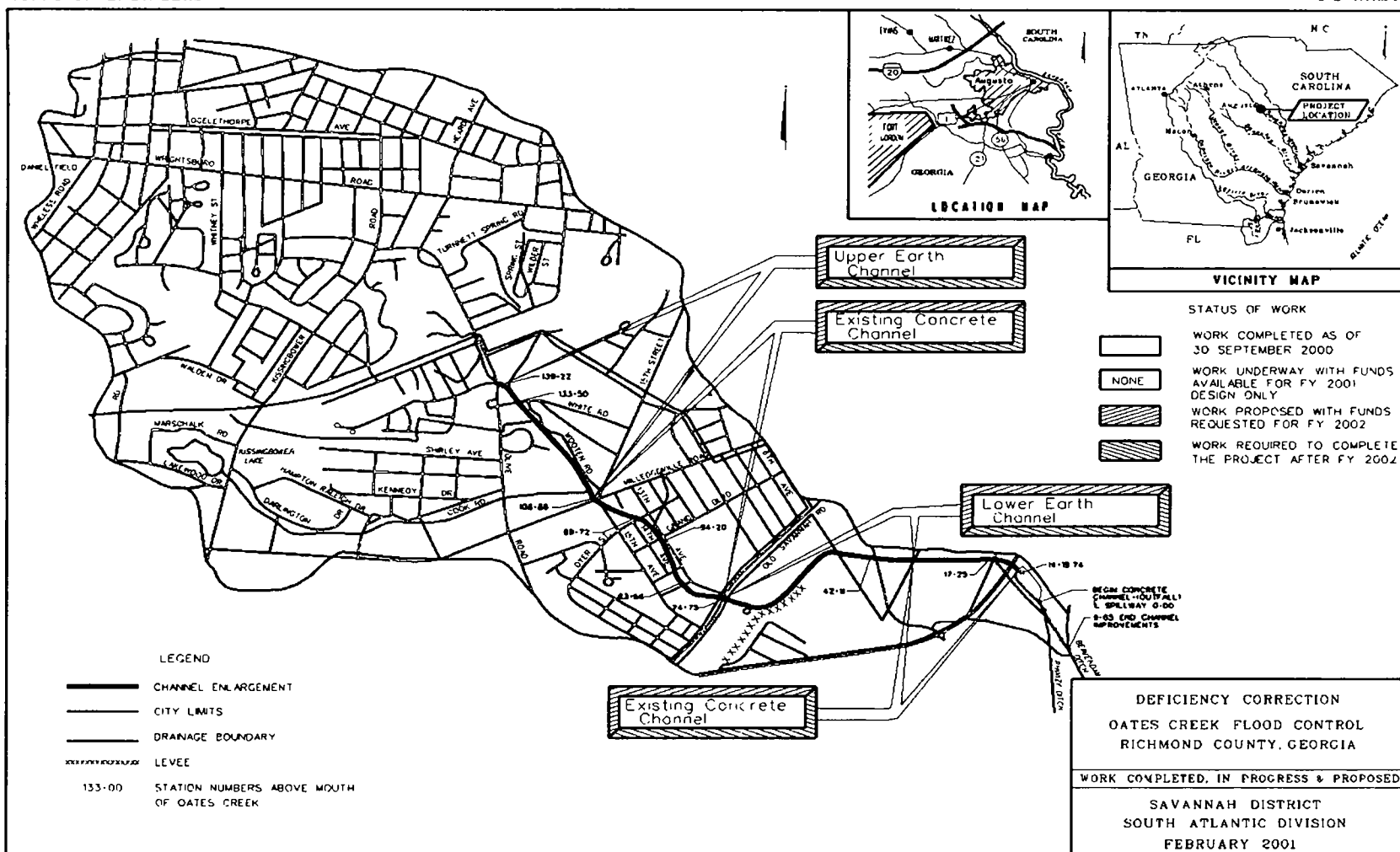
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal Corps cost estimate of \$1,672,000 is the same as the latest estimate submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The May 1999 Correction Deficiency Evaluation Reconnaissance Report concluded the existing environmental assessment for the original project construction adequately addresses all proposed work and further documentation is not needed.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 2001.

CORPS OF ENGINEERS

U S ARMY



Division: South Atlantic

District: Savannah

Oates Creek, Richmond County, GA

3 April 2001

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APPROPRIATION TITLE: Construction, General -- Local Protection Project (Flood Control)

PROJECT: Arecibo River, Puerto Rico (Continuing)

LOCATION: The city of Arecibo is located on the northern coast of Puerto Rico, approximately 40 miles west of San Juan. The Rio Arecibo Basin covers a 272 square mile area and has experienced numerous floods over recent years. The upstream towns of Utuado, Jayuya, and Adjuntas have also been subject to the frequent flooding. Extensive floods occurred in May and October 1985 and again in September 1996 with Hurricane Hortense. When Hurricane Georges hit the island in September 1998, the municipality of Arecibo experienced the 100-year flood event, resulting in significant damages to commercial and residential properties and loss of the Victor Rojas bridge.

DESCRIPTION: The proposed plan includes channel improvements, a flood wall, and a levee along the Arecibo River; a levee along the Tanama River; and a plug, channel improvements, and a diversion channel along the Santiago river.

AUTHORIZATION: Water Resource Development Act 1996, Sec 101(a)(26).

REMAINING BENEFIT - REMAINING COST RATIO 4.1 to 1 at 6 7/8 PERCENT

TOTAL BENEFIT -- COST RATIO: 4.1 to 1 at 6 7/8 PERCENT

INITIAL BENEFIT – COST RATIO: 4.1 at 6 7/8 PERCENT (FY 2000).

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the July 1998 Limited Reevaluation Report updated at October 1998 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2000)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 14,400,000		Relocations - Roads	1	Being Determined
			Cemeteries/Utilities	1	Being Determined
Estimated Non-Federal Cost	11,600,000		Levees and Floodwalls	1	Being Determined
Cash Contributions	\$ 1,559,000		Recreation	1	Being Determined
Other Costs	10,041,000		Fish/Wildlife Facilities	1	Being Determined
			Channels & Canals	1	Being Determined
Total Estimated Project Costs	26,000,000		Breakwaters	1	Being Determined
Allocations to 30 September 2000	2,172,000		Entire Project	5	Being Determined
Conference Allowance for FY 2001	5,391,000				
Allocation for FY 2001	1,027,000	/1			
Allocations through FY 2001	3,199,000	22%			
Allocations Requested for FY 2002	500,000	26%			
Programmed Balance to Complete After FY 2002	10,701,000				

1/ Reflects \$864,000 reduction assigned as savings and slippage, \$3,500,000 reprogrammed from the project and \$11,000 rescinded in accordance with the Consolidated Appropriations Act, 2001..

PHYSICAL DATA	
Relocations - Bridges (Replacement)	5
Levee	6,325 Meters
Floodwalls	315 Meters
Channels	6,300 Meters
Jetty	30.5 Meters
Wetland Mitigation	7.2 Acres
Recreation Trails	1,465 Meters

Division: South Atlantic

District: Jacksonville

Arecibo River, PR

3 April 2001

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JUSTIFICATION: Over 500 acres of urbanized city area are impacted by floods including 800 residences, and over 100 businesses and public facilities. In addition to quantifiable damages, severe disruption of transportation and socio-economic activities resulted from these floods.

Annual Benefits	Amount
Inundation Reduction	\$ 6,609,000
Employment	80,000
Advance Bridge Replacement	161,000
Flood Insurance Cost	9,000
Recreation	<u>236,000</u>
Total	7,095,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Channels and Canals	\$ 88,000
Levees and Floodwalls	367,000
Engineering During Construction	15,000
Construction Management	<u>30,000</u>
Total	500,000

**NON-FEDERAL COST:** In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation Maintenance, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas	\$ 4,954,000	
Modify or relocate buildings, utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary in the construction of the project	5,087,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	329,000	
Pay 8.33 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures.	<u>1,230,000</u>	
<b>Total Non-Federal Costs</b>	<b>11,600,000</b>	<b>\$ 76,000</b>

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

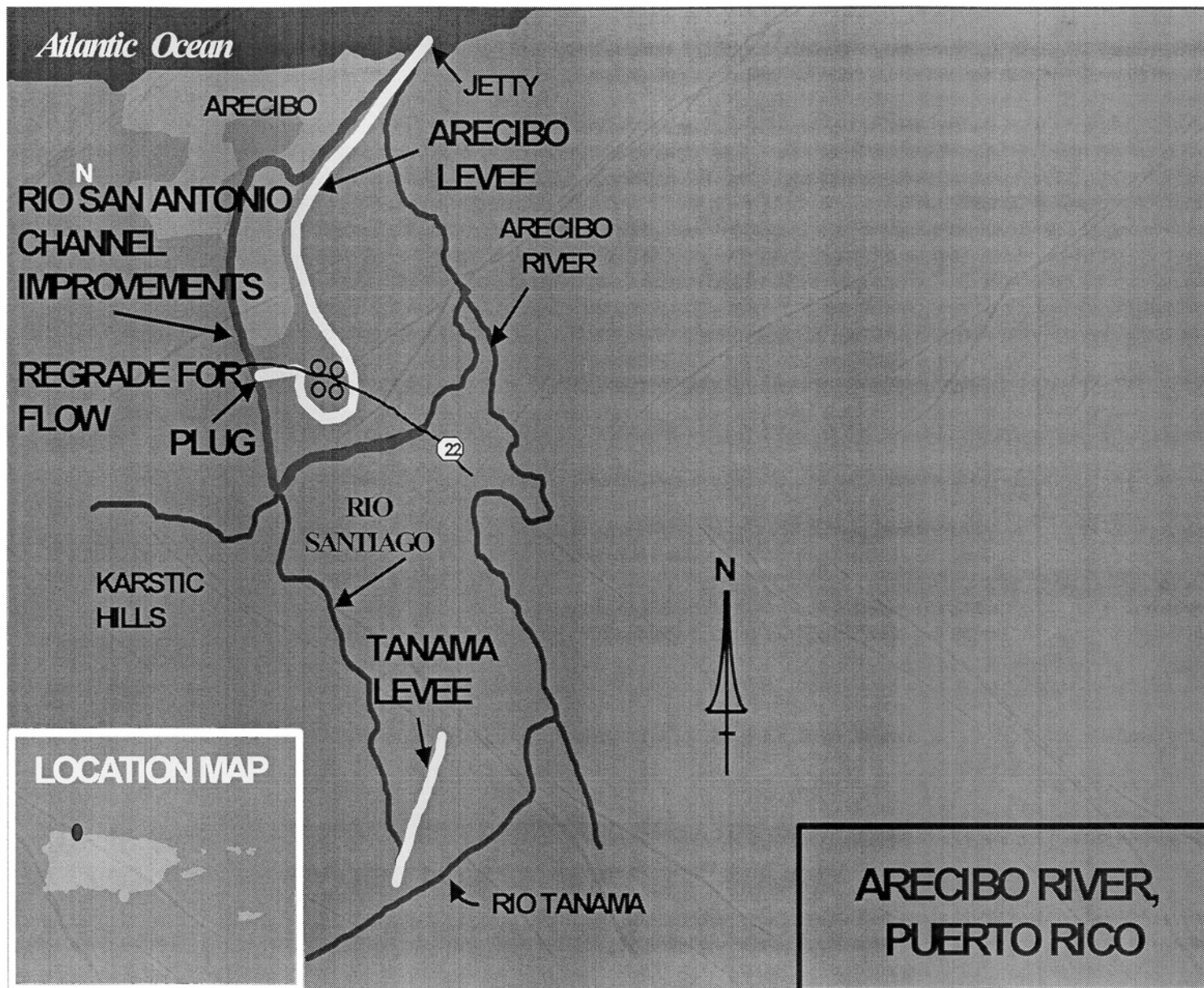
**STATUS OF LOCAL COOPERATION:** The Puerto Rico Department of Natural and Environmental Resources (DNER), is the local sponsor. The Project Cooperation Agreement is scheduled for execution in FY 2001.

**COMPARISON OF FEDERAL COST ESTIMATES:** The current Federal (Corps of Engineers) cost estimate of \$14,400,000 is an increase of \$1,900,000 over the latest estimate of \$12,500,000 submitted to Congress (FY 2001). This change includes the following:

Item	Amount
Price Escalation on Construction Features	\$1,900,000
<b>Total</b>	<b>\$1,900,000</b>

**STATUS OF ENVIRONMENTAL IMPACT STATEMENT:** The final Environmental Impact Statement for the project was filed on 10 December 1993.

**OTHER INFORMATION:** Funds to initiate preconstruction engineering and design (PED), were appropriated in fiscal year 1994 and PED was complete in September 1999. This project is on the President's Long Term Recovery Action Plan for Puerto Rico.



APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Portugues and Bucana Rivers, Puerto Rico (Continuing)

LOCATION: The improvements are in and near Ponce on the Portugues and Bucana Rivers on the south coast of Puerto Rico.

DESCRIPTION: The project provides for two multiple-purpose reservoirs for flood control, water supply, general recreation, and fish and wildlife enhancement; enlargement of 5.7 miles of Bucana River and 2 miles of Portugues River; a 1.3 mile diversion channel connecting the Portugues River to lower Bucana River; and debris basins at the Bucana and Portugues Rivers. All work is programmed except the water supply increment of Portugues Dam.

AUTHORIZATION: Flood Control Act of 1970 and Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 1.6 to 1 at 5 5/8 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 5 5/8 percent.

INITIAL BENEFIT - COST RATIO: 1.6 to 1 at 5 5/8 percent (FY 1975).

BASIS OF BENEFIT - COST RATIO: Benefits are from the July 1973 Design Memorandum Phase 1, Plan Formulation and Site Selection Report at July 1973 prices levels except for Portugues Dam where benefits are from the March 1990 Economic Reanalysis Report at January 1990 price levels.



SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2000)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		430,300,000		Channels and Canals		
Programmed Construction	430,126,000			Lower Channels	100	Aug 1978
Unprogrammed Construction	174,000			Upper Bucana Channel	100	Jun 1983
				Upper Portugues Channel	95	Dec 2000
Future Non-Federal Reimbursement		213,974,000		Bucana River Debris Basin	100	Jun 1987
Programmed Construction	213,974,000			Portugues Debris Basin	100	Mar 1987
Unprogrammed Construction	0			Dams		
				Cerrillos	100	Sep 1994
Estimated Federal Cost (Ultimate)		216,326,000		Portugues (Flood Control)	30	Being determined
Programmed Construction	216,152,000			Portugues (Water Supply)	0	Indefinite
Unprogrammed Construction	174,000			Recreation		
				Channels	60	Being determined
Estimated Non-Federal Cost		360,174,000		Cerrillos	42	Mar 2002
Programmed Construction	146,200,000			Portugues	0	Being determined
Cash Contributions	50,505,000					
Other Costs	95,695,000			Entire Project	85	Being determined
Reimbursement						
Water Supply	213,974,000					
Unprogrammed Construction	21,052,000					
Cash Contributions	21,052,000					
Other Costs	0					
Reimbursement	0					
Total Estimated Programmed Construction Cost		576,500,000				
Total Estimated Unprogrammed Construction Cost		21,226,000				
Total Estimated Project Cost		531,192,000				

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	388,979,000	
Conference Allowance for FY 2001	9,571,000	
Allocation for FY 2001	6,537,000	1/
Allocation through FY 2001	395,516,000	92%
Allocation Requested for FY 2002	5,409,000	93%
Programmed Balance to Complete After FY 2002	29,201,000	
Unprogrammed Balance to Complete After FY 2002	174,000	

1/ Reflects \$1,534,000 reduction assigned as savings and slippage, \$1,500,000 reprogrammed from the project, and \$19,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

PHYSICAL DATA

Dam Type Height Crest Length	Portugues Concrete arch 272 feet 1,500 feet	Cerrillos Earth and rock-fill 323 feet 1,555 feet
Spillway Type	Ungated concrete ogee 150 feet wide	Ungated rock cut 400 feet wide
Reservoir Capacity (Acre-Feet)		
Flood Control	8,342	17,065
Water Supply	14,000	25,200
Sediment	2,841	5,635
Total	25,183	47,900
Portugues River Channel Enlargement		2.1 miles
Bucana River Channel Enlargement		5.7 miles
Diversion Channel Connecting Portugues River to the Lower Bucana River		1.3 miles

JUSTIFICATION: The mountainous terrain above Ponce permits rapid runoff into the rivers which overflow in the lower elevation flood plains in Ponce causing loss of life and extensive property damage. The 1954 flood caused damages of \$1,297,000 (\$6,991,000 at 1989 price levels). Minor flooding occurs almost yearly and major floods occur every 5 years on the average. Other major damaging floods occurred in 1961 (\$4,931,000 at 1989 price levels), 1970 (\$2,176,000 at 1989 price levels), 1975 (\$35,253,000 at 1989 price levels), and 1985 (\$33,517,000 at 1989 price levels). The average degree of protection provided by the completed project will be the standard project flood frequency. Upon completion, 6,415 acres will be protected, including 4,310 agricultural acres, 1,855 urban acres, and 250 acres which are undeveloped. Present value of property subject to flood damages is \$624,069,000. Average annual flood damages prevented are all attributable to existing urban development. Water supply is also a need that will be met by the Portugues and Bucana Rivers project. The water storage capacity in Lake Cerrillos is 25,200 acre-feet while ongoing studies have established a preliminary capacity for Lake Portugues of 14,000 acre-feet. Primary uses of the water supply will be municipal and industrial. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	43,387,000
Water Supply	13,968,000
Recreation	2,418,000
Area Redevelopment	<u>1,166,000</u>
Total	60,939,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Recreation	1,647,000
Clearing-Portugues Dam	276,000
Initiate Portugues Dam	3,061,000
Construction Management	<u>425,000</u>
Total	5,409,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1970 and the Water Resources Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-way.	73,095,000	
Modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project.	20,818,000	
Pay additional cash required to bring the total Non-Federal share of the flood control costs to 25 percent and bear all costs of operation, maintenance, and replacement of flood control facilities.	50,505,000	249,900
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	8,279,000	258,300
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, and replacement of municipal and industrial water supply facilities.	20,667,000	85,700
Reimbursement for water supply on Cerrillos Dam	<u>66,360,000</u>	<u>          </u>
Total Non-Federal Costs	239,724,000	593,900

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. The following contract agreements are required pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 and the Water Resources Development Act of 1986:

Contract	Actual or Anticipated Execution Date
Section 221 – Cerrillos Reservoir	15 Mar 1982
Channels	22 Jul 1974
Water Supply – Cerrillos Reservoir	15 Mar 1982
Recreation – Cerrillos Reservoir	15 Mar 1982
Channels	24 Jun 1987
Project Cooperation Agreement – Portugues Reservoir	9 Aug 1993

STATUS OF LOCAL COOPERATION (Continued):

Portugues Dam is a concrete elliptical arch dam, curved in both the vertical and horizontal planes. The dam is designed as a multi-purpose dam to be constructed in two phases. The Commonwealth of Puerto Rico has requested that the dam be constructed as soon as possible for flood control and recreation, but to defer the water supply feature to a later date. By letter dated 15 November 1991, the Commonwealth restated their commitment to the full and complete multi-purpose Portugues Dam, and agreed to pay the additional costs required for the phased construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$430,300,000 is the same as the latest estimate presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ on 25 February 1974. A Supplemental EIS for the Portugues Dam was submitted in November 1992.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1975.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS:

Channels and Canals

Estimated Federal Cost		110,988,000
Estimated Non-Federal Costs		62,387,000
Cash Contributions	3,377,000	
Other Costs	59,010,000	
Total Estimated Project Cost		173,375,000

REMAINING BENEFIT-COST RATION: Not applicable because construction is substantially complete.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued):

Cerrillos Dam

Estimated Total Appropriation Requirement	224,862,000
Future Non-Federal Reimbursement (Water Supply)	213,974,000
Estimated Federal Cost Ultimate	10,888,000
Estimated Non-Federal Cost Ultimate	243,337,000
Cash Contributions	5,483,000
Other Costs	23,880,000
Reimbursement:	213,974,000
Water Supply	
Total Estimated Project Cost	254,225,000

REMAINING BENEFIT-REMAINING COST RATION: Not applicable because construction is substantially complete.

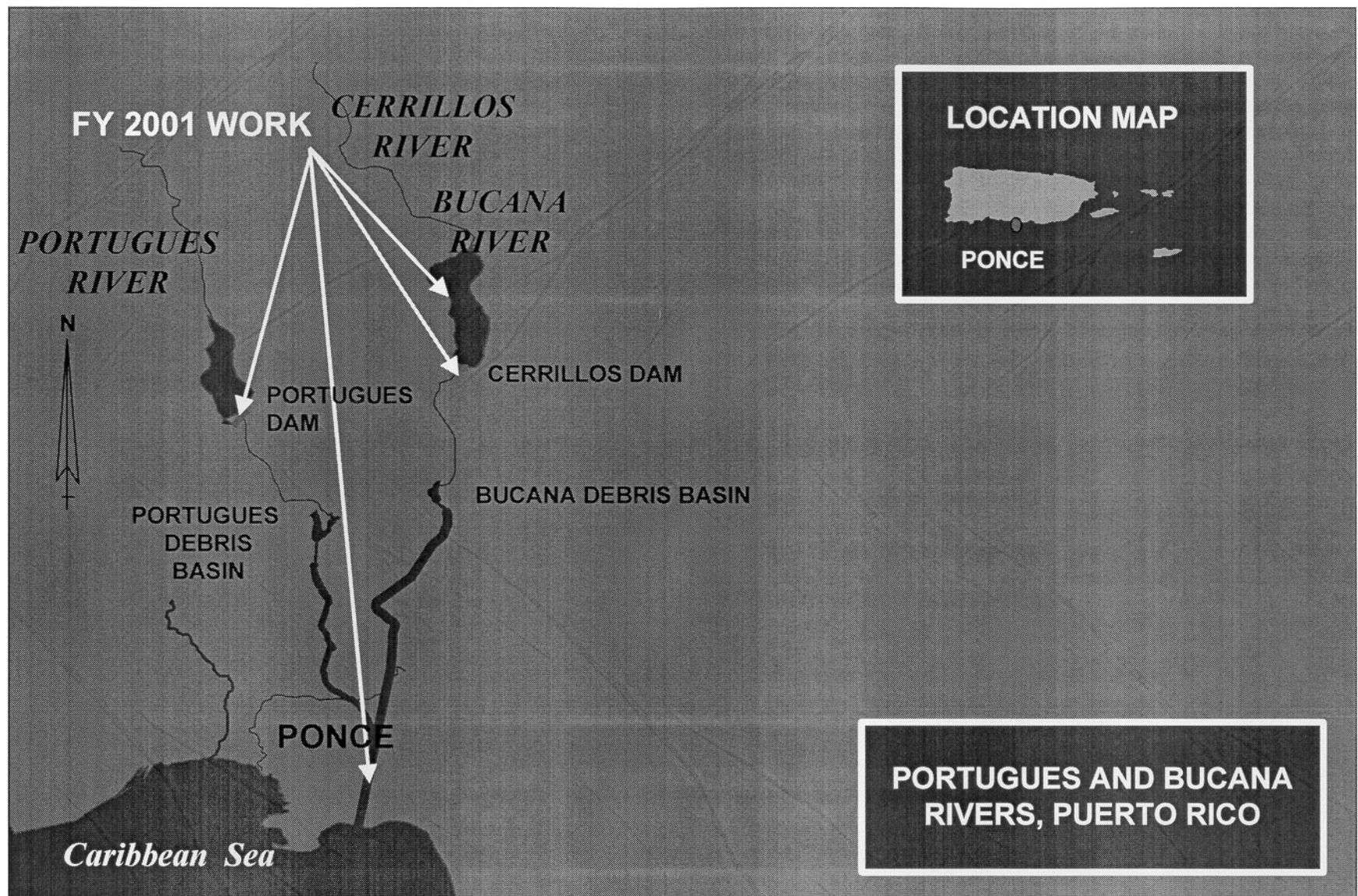
SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued):

Portugues Dam

Estimated Total Appropriation Requirement			94,450,000
Programmed Construction		94,276,000	
Unprogrammed Construction		174,000	
Estimated Non-Federal Cost			54,550,000
Programmed Construction		33,498,000	
Cash Contribution	20,693,000		
Other Costs	12,805,000		
Unprogrammed Construction		21,052,000	
Cash Contributions	21,052,000		
Other Costs	0		
Total Estimated Programmed Construction Cost			127,774,000
Total Estimated Unprogrammed Construction Cost			21,226,000
Total Estimated Project Cost			149,000,000

REMAINING BENEFIT-REMAINING COST RATION: 6.8 to 1 at 6 5/8 percent.

TOTAL BENEFIT-COST RATIO: 4.1 to 1 at 6 5/8 percent.





APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Rio de la Plata, Puerto Rico (Continuing)

LOCATION: The Rio de La Plata basin drains an area of approximately 240 square miles at a point 11 miles west of San Juan. This area includes all or part of the municipalities of Dorado, Toa Baja, Toa Alta, Camerio, Cedra, Cayey, Arbonito and Barranquitas. The total population of the basin is approximately 290,000 people.

DESCRIPTION: The proposed plan calls for 7.0 miles of channel excavation and improvements, 7.6 miles of levees along both sides of the river, 8 ponding areas, wetland mitigation, recreation facilities, and the replacement of 3 bridges. The project is designed to provide 100-year flood protection for the areas south of Highway 2 and the area surrounding El Polvorin Ward and SPF protection for the remainder of the area north of Highway 2. All work is programmed. Hurricane Georges caused an estimated \$21,500,000 in damages in a 24-year event.

AUTHORIZATION: Water Resources Development Act of 1990, Sec 101(a)(19).

REMAINING BENEFIT - REMAINING COST RATIO: 1.6 to 1 at 8 4/8 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 8 4/8 percent.

INITIAL BENEFIT - COST RATIO: 1.6 to 1 at 8 4/8 percent (FY 1995).

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the April 1992 Limited Reevaluation Report (LRR), revised in June 1992 at October 2000 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jun 2000)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 66,700,000		Relocations - Bridges	0	Being Determined
Estimated Non-Federal Cost	32,300,000		Channels and Canals	0	Being Determined
Cash Contributions	\$ 5,352,000		Levees and Floodwalls	0	Being Determined
Other Costs	26,948,000		Recreation	0	Being Determined
			Floodway Control and Diversion Structures	0	Being Determined
Total Estimated Project Cost	99,000,000		Entire Project	7	Being Determined
Allocations to 30 September 2000	\$ 6,913,000				
Conference Allowance for FY 2001	3,486,000				
Allocation for FY 2001	427,000	1/			
Allocations through FY 2001	7,340,000	11%			
Allocation Requested for FY 2002	500,000	12%			
Programmed Balance to Complete After FY 2002	59,346,000				
Unprogrammed Balance to Complete After FY 2002	0				

1/ Reflects reduction of \$559,000 assigned as savings and slippage, \$2,500,000 reprogrammed from the project. and \$7,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

PHYSICAL DATA	
Relocations - Bridges (Replacement)	3
Levees - Miles	7.6
Canals - Miles	7
Ponding Areas	8
Wetlands Mitigation * - Acres	5.25
Recreation Areas	3

\* An additional 10 acres of shallow lagoon and emergent marsh will also be created adjacent to the mitigation area.

JUSTIFICATION: Heavy rainfall combined with the very steep slopes of the upper basin produces high discharges in a relatively short time. Flooding in the area affects over 12,300 families and numerous public buildings and commercial facilities. The area has been declared a flood disaster area by the President six times since 1974. The most recent flood occurred in January 1992 which damaged numerous commercial structures, public facilities and about 3,000 homes and resulted in the loss of two lives. The average annual rainfall is about 71 inches. Average annual benefits are as follows:

Annual Benefits	Amount
Inundation Reduction	\$ 9,230,000
Benefits During Construction	937,000
Redevelopment	429,000
Advance Bridge Replacement	608,000
Recreation	117,000
Other: Emergency and Insurance	<u>162,000</u>
Total	11,483,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering, and Design	<u>\$ 500,000</u>
Total	500,000

**NON-FEDERAL COST:** In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way and dredged material disposal areas.	\$ 9,333,000	
Modify or relocate buildings, utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary in the construction of the project	17,615,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities	505,000	
Pay 6.9 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures	<u>4,847,000</u>	<u>                    </u>
<b>Total Non-Federal Costs</b>	<b>32,300,000</b>	<b>\$ 367,000</b>

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

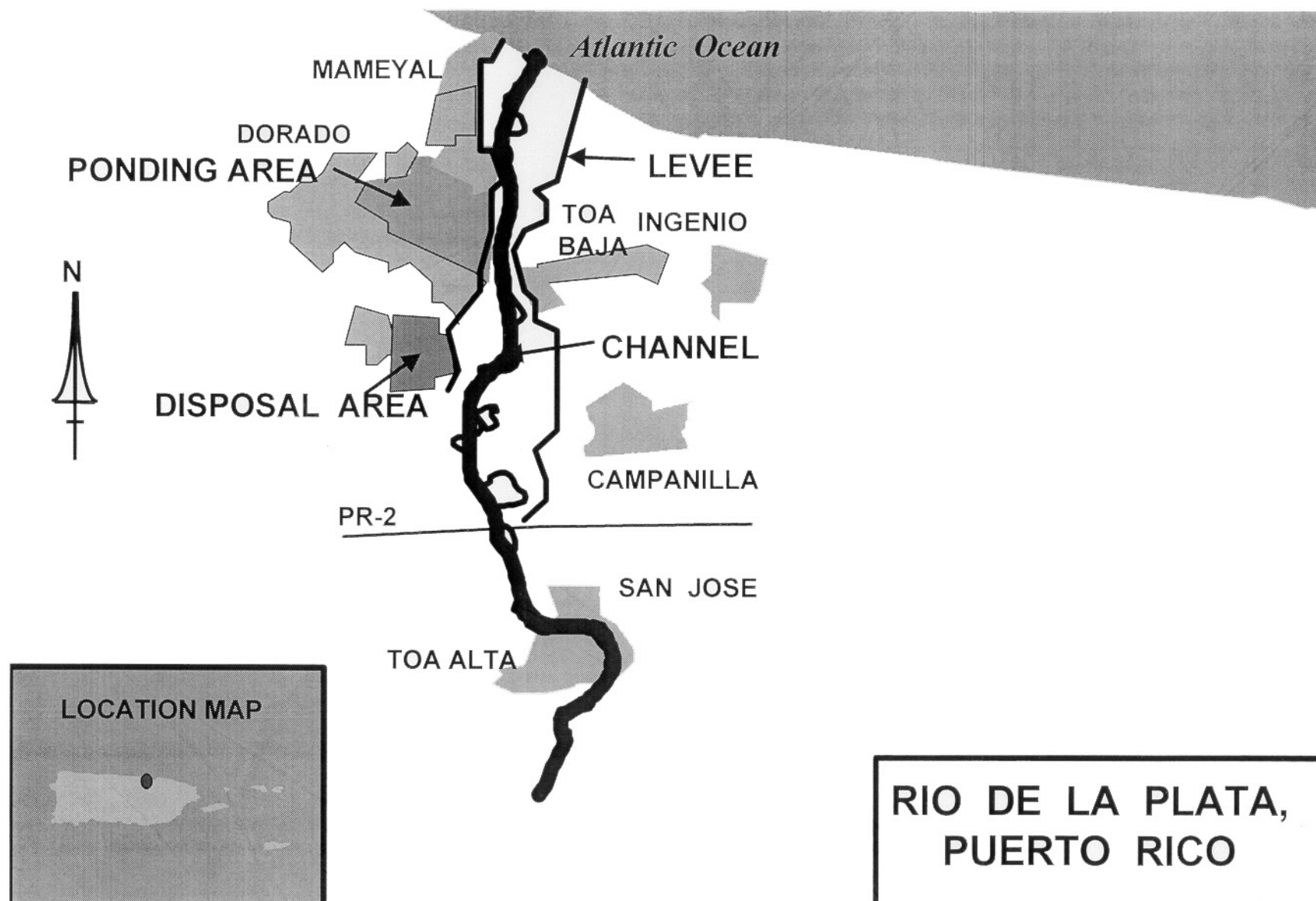
**STATUS OF LOCAL COOPERATION:** The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. Acquisition for real estate required for the first contract is underway.

**COMPARISON OF FEDERAL COST ESTIMATES:** The current Federal (Corps of Engineers) cost estimate of \$66,700,000 is an increase of \$1,800,000 from the latest estimate (\$64,900,000) submitted to Congress (FY 2001). This change includes the following:

Item	Amount
Price Escalation on Construction Features	\$1,800,000
Total	\$1,800,000

**STATUS OF ENVIRONMENTAL IMPACT STATEMENT:** The final Environmental Impact Statement for the project was filed in September 1988. The FONSI was signed in April 1993.

**OTHER INFORMATION:** Funds to initiate planning, engineering, and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in October 1994. The current scheduled completion date is being determined. This project is on the President's Long Term Recovery Action Plan for Puerto Rico.



APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Rio Grande de Loiza, Puerto Rico (Continuing)

LOCATION: The Rio Grande de Loiza basin, located in the eastern central part of Puerto Rico, is the island's largest basin. It comprises the coastal plain of Carolina and the metropolitan area of Caguas in the interior valley. The project area consists of 530 square kilometers draining into Lake Loiza. It includes the city of Caguas and the town of Gurabo where over 4,100 families and numerous public buildings and commercial facilities are affected by flooding.

DESCRIPTION: The authorized project would provide channels, levees, and floodwalls for flood protection for the highly urbanized areas of the city of Caguas and the town of Gurabo. It consists of 1.8 kilometers of gabion-lined channel, 1.9 kilometers of concrete channels, and a debris basin for Rio Caguaitas; 1.3 kilometers of concrete channels, 1.0 kilometers of earth channel, 0.6 kilometers of gabion-lined channel, 1.0 kilometer of levees, and a debris basin for Rio Bairoa; 2.8 kilometers of levees and floodwalls for Rio Grande de Loiza; and 0.7 kilometers of pilot channel and 1.8 kilometers of levees for Rio Gurabo. It also provides for recreation bikeway/pedestrian trails at Rio Grande de Loiza and Rio Gurabo levees. The average level of protection at Rio Caguaitas and Rio Bairoa is estimated at 70 years and 220 years, respectively. The average level of protection for the remaining reaches is estimated at 100 years.

AUTHORIZATION: Water Resources Development Act of 1992, Section 101 (19).

REMAINING BENEFIT - REMAINING COST RATIO: 1.9 to 1 at 6-7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 6-7/8 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the Economic Analyses performed for the April 1995 Limited Reevaluation Report, updated at October 2000 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2000)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$155,300,000	Channels and Canals	1	Being Determined
Estimated Non-Federal Cost		55,300,000	Levees and Floodwalls	1	Being Determined
Cash Contributions	\$10,981,000		Floodway Control and Diversion	1	Being Determined
Other Costs	44,319,000		Recreation	1	Being Determined
Total Estimated Project Cost		210,600,000	Entire Project	4	Being Determined
Allocations to 30 September 2000		2,713,000			
Conference Allowance for FY 2001		749,000			
Allocation for FY 2001		629,000	1/		
Allocations through FY 2001		3,342,000	2%		
Allocation Requested for FY 2002		500,000	2%		
Programmed Balance To Complete After FY 2002		151,458,000			
Unprogrammed Balance to Complete After FY 2001		0			

1/Reflects \$120,000 reduction assigned as savings and slippage and \$1,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

PHYSICAL DATA	
Relocations - Bridges (Replacement)	12
Levees & Floodwalls - Kilometers	5.6
Channels - Kilometers	7.3
Debris Basins	2

JUSTIFICATION: Flooding is a major problem in this area threatening the life, property and economic development of the residents of the city of Caguas and the town of Gurabo, Puerto Rico. The Upper Rio Grande de Loiza basin drains an area of 530 square kilometers into the Loiza Lake. Heavy rainfall combines with very steep slopes to produce high discharges in a relatively short period of time. Flooding in the detailed study area affects over 4,100 families, and numerous public building and commercial facilities. Expected annual flood damages for existing conditions is estimated at \$18.6 million.

Average annual benefits are as follows:

Annual Benefits	Amount
Inundation Reduction	\$ 21,247,000
Location	1,060,000
Redevelopment	909,000
Advance Bridge Replacement	273,000
Flood Insurance Cost	150,000
Recreation	<u>210,000</u>
Total	23,849,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering, and Design	<u>\$ 500,000</u>
Total	500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1970 and the Water Resources Act of 1986, the non-Federal sponsor must comply with the requirements listed below.



	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, and rights-of-way.	\$ 22,229,000	
Modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project.	22,090,000	
Pay 7.02 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operations, maintenance, and replacement of flood control facilities.	10,493,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	<u>488,000</u>	
Total Non-Federal Cost	55,300,000	\$ 80,000

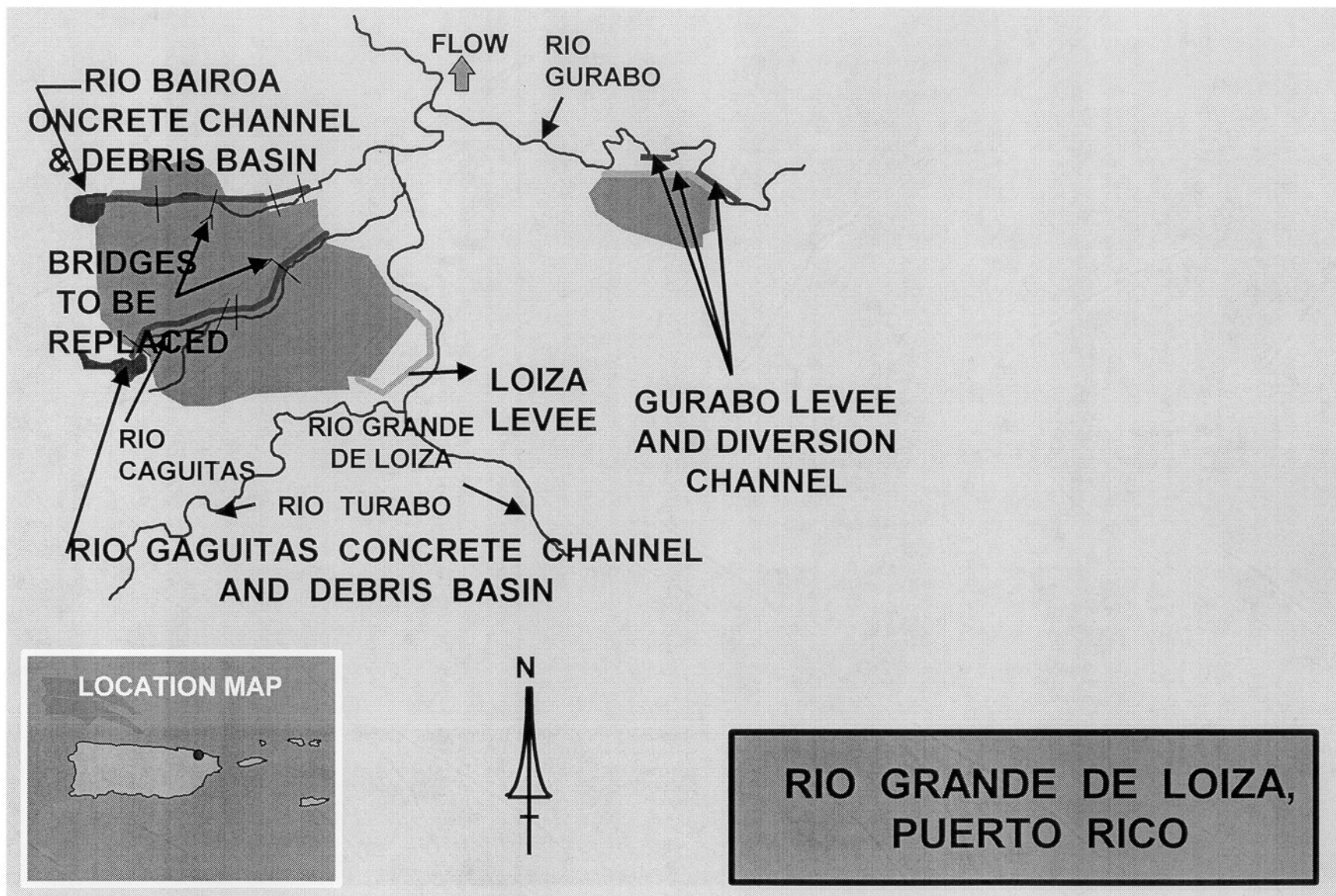
STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. The Project Cooperation Agreement (PCA) for the project is scheduled for execution in April 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$155,000,000 is an increase of \$4,300,000 from the latest estimate (\$150,700,000) submitted to Congress (FY2001). This change includes the following:

Item	Amount
Price Escalation on Construction Features	\$4,300,000
Total	\$4,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed in October 1991. No significant fish and wildlife habitats were identified, no specific mitigation measures were recommended as part of the flood control plan. A Water Quality Certificate (WQC) covering the entire project was issued by the Puerto Rico Environmental Quality Board on March 15, 1993

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Oct 1992. Funds were appropriated to initiate construction in FY 2001.



APPROPRIATION TITLE: Construction, General -- Local Protection Project (Flood Control)

PROJECT: Rio Grande de Manati, Puerto Rico (Continuing)

LOCATION: The project area consists of the Rio Grande de Manati basin, which is located in the north-central coastal region of Puerto Rico at the town of Barceloneta.

DESCRIPTION: The recommended plan consists of providing a 5,300 meters long ring levee, two pilot channels totaling 1,620 meters in length, and minimum interior drainage facilities. Project implementation requires acquisition of seven residential structures, relocation of one boat ramp, three highway ramps, and one agricultural road ramp, and relocation of existing utilities impacted by the levee at four locations. The project is designed to protect against the 100-year flood and would reduce 92 percent of the total annual flood damages for the flood prone areas of the town of Barceloneta. The recommended plan maximizes the net national economic development benefits.

AUTHORIZATION: Water Resource Development Act (WRDA) 1999

REMAINING BENEFIT - REMAINING COST RATIO. 4.2 to 1 at 6 5/8 percent

TOTAL BENEFIT -- COST RATIO: 4.2 to 1 at 6 5/8 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the May 1998 Supplemental Report to the March 1994 Final Detailed Project Report and Environmental Assessment, updated at October 2000 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		10,400,000	Relocations - Roads		
			Channels	3	Being Determined
Estimated Non-Federal Cost		5,600,000	Levees	2	Being Determined
Cash Contributions	2,110,000				
Other Costs	3,490,000		Entire Project	5	Being Determined
Total Estimated Project Cost		16,000,000			
Allocations to 30 September 2000		1,029,000			
Conference Allowance for FY 2001		0			
Allocation for FY 2001		3,000,000	1/		
Allocations through FY 2001		4,029,000	29%		
Allocation Requested for 2002		1,500,000	68%		
Programmed Balance to Complete after FY 2002		4,871,000			
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$3,000,000 reprogrammed to the project.

#### PHYSICAL DATA

Levee	5,300	Meters
Pilot Channels	1,620	Meters
Drainage Channels	5,230	Meters
Drainage Structures	2	
Road Ramps	4	

JUSTIFICATION: The overflow of the Rio Grande de Manati results in severe and frequent flooding to the entire town of Barceloneta (population of 5,000 people) and affects over 300 acres of highly urbanized area with 914 residential structures, 91 commercial structures, 51 institutional facilities, and 14 industrial buildings. Since the turn of the century, there have been at least fifteen damaging floods on the Rio Grande de Manati. Flood waters from the floods of May 1985 and those resulting from the passage of Georges caused damages totaling over \$10.0 million and President declared the town of Barceloneta a disaster area. This project has been identified as the number one priority in the President's Long-Term Recovery Action Plan for flood damage prevention in the Commonwealth of Puerto Rico.

Item	Amount
Inundation reduction	4,199,000
Redevelopment	0
Recreation	0
Others	<u>44,000</u>
Total Annual Benefits	4,243,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Channels	0
Levees	1,292,000
Engineering During Construction	50,000
Supervision and Administration	<u>158,000</u>
Total	1,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Chief of Engineers Report dated 22 January 1999 and WRDA 1999, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	1,837,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	1,653,000	
Pay 16.9 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures.	<u>2,110,000</u>	<u>20,000</u>
Total non-Federal payments during construction	5,600,000	20,000

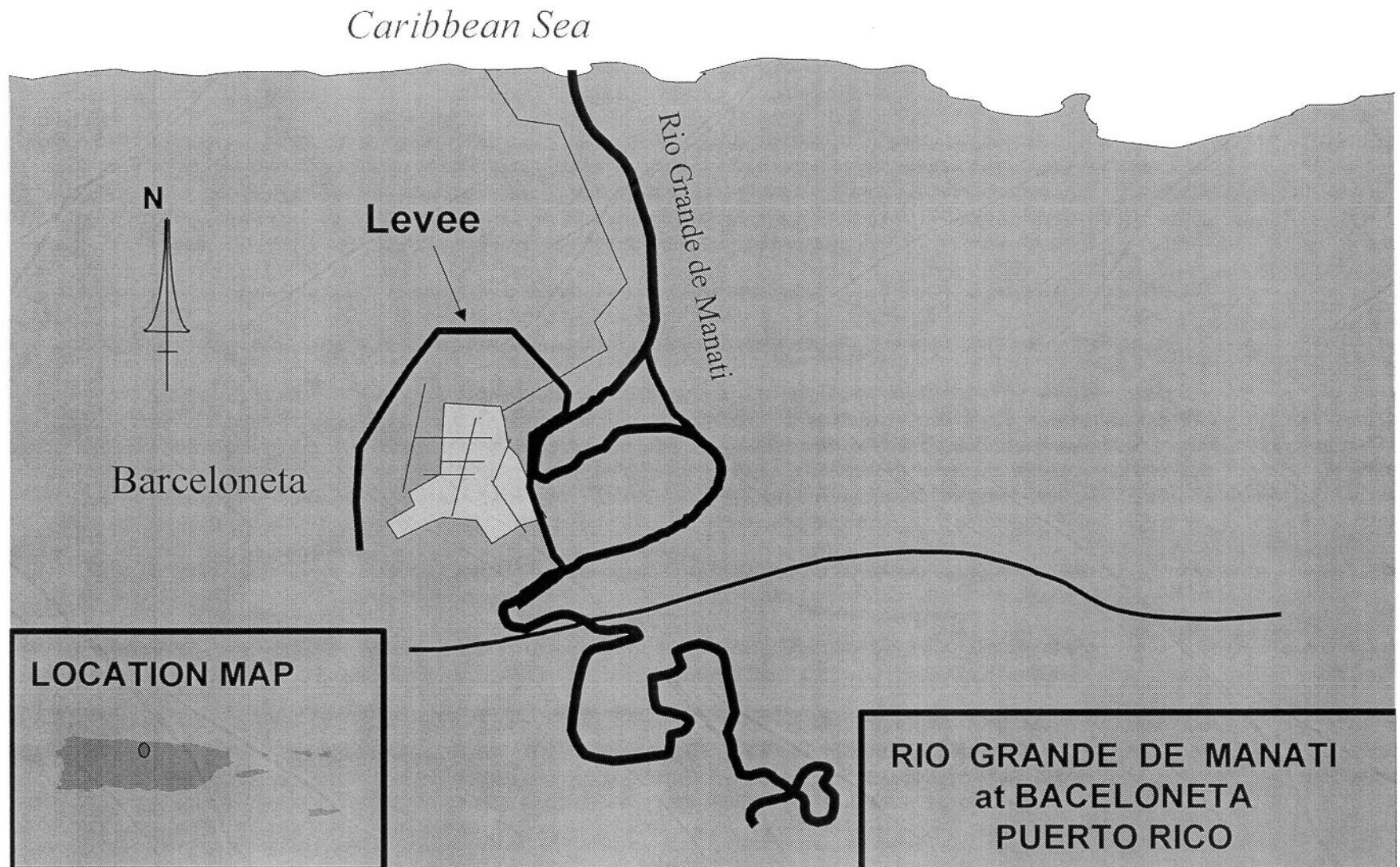
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Commonwealth of Puerto Rico Department of Natural and Environmental Resources (DNER) is the local sponsor. The Project Cooperation Agreement was executed under Section 205 of the Continuing Authorities Program on 10 May 1999. This project was initially pursued under the Continuing Authorities Program (CAP), but as the cost of the project substantially exceeds the CAP scope, specific authorization was sought and subsequently included in WRDA 1999. This authorization adjusted the project cost sharing by removing the \$5 million Federal cost limitation under CAP and require the sponsor to provide a minimum of 35 percent, but not to exceed 50 percent. A supplement to the PCA would be required to amend the project cost sharing. The supplement to the PCA is scheduled for October 2001 should construction funds be appropriated.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate is \$10,400,000. This is the initial budget submission to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Finding of No Significant Impact (FONSI) was signed on 24 March 1994 and Water Quality Certification was issued on 15 August 1995.

OTHER INFORMATION. Funds to initiate plans and specifications were allocated in fiscal year 1995 under the Continuing Authority Program. Due to the relatively high non-federal cost sharing under the Continuing Authority Program, the Puerto Rico Resident Commissioner has pursued a direct Congressional Authorization. The execution of the PCA under Section 205 of the Continuing Authorities Program was based upon the need to expedite implementation of this project. Land acquisition by the local sponsor is currently underway.



APPROPRIATION TITLE: Construction, General - Local Protection Project (Flood Control)

PROJECT: Rio Puerto Nuevo, Puerto Rico (Continuing)

LOCATION: The Rio Puerto Nuevo drainage basin is located within the San Juan Metropolitan Area along the northern coast of Puerto Rico. The basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The basin is traversed by the Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Buena Vista, and Quebrada Guaracanal.

DESCRIPTION: The proposed plan calls for improvements to 11.2 miles of the existing channels of Rio Puerto Nuevo and Rio Piedras and five tributaries of the Rio Puerto Nuevo drainage basin. The project is designed to provide 100-year flood protection for the areas adjacent to the Puerto Nuevo and its tributaries. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 2.5 to 1 at 8 1/2 percent.

TOTAL BENEFIT - COST RATIO: 2.5 to 1 at 8 1/2 percent.

INITIAL BENEFIT - COST RATIO: 2.5 to 1 at 8 1/2 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the revised General Design Memorandum dated June 1991 at October 2000 price levels.



SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		331,000,000	Relocations	30	Being Determined
			Roads, Railroads, Bridges	30	Being Determined
Estimated Non-Federal Cost		111,000,000	Channels and Canals	15	Being Determined
Cash Contributions	54,683,000		Recreation	0	Being Determined
Other Costs	56,317,000				
Total Estimated Project Costs		442,000,000	Entire Project	19	Being Determined
Allocations to 30 September 2000		65,749,900			
Conference Allowance for FY 2001		13,773,000			
Allocation for FY 2001		9,414,000	1/		
Allocations through FY 2001		75,163,900	23%		
Allocation Requested for 2002		9,000,000	26%		
Programmed Balance to Complete after FY 2002		246,836,100			
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$2,208,000 reduction assigned as savings and slippage, \$2,151,000 reprogrammed from the project and \$27,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

#### PHYSICAL DATA

Relocations - Bridges (Replacement)	17
Relocations - Bridges (Modification)	8
Relocations - Bridges (Construction)	5
Canals - Miles	11.2
Debris Basins	2
Stilling Areas	2

JUSTIFICATION: The intense development in the basin has altered the natural discharge patterns, significantly increased the runoff rates and restricted the flows in the flood plain. There are over 240,000 people living in the 25 square mile drainage basin. The area is over 90% developed and is expected to be 100% developed by the year 2000. Development has progressed to the point where some of the tributary channels are not capable of carrying the two-year storm without causing flooding. In many areas, houses and other buildings are built adjacent to the banks of the channels and further restrict flood flows. Over 5,700 families would be subject to flooding from the 100-year storm under existing conditions. The average annual rainfall is about 71 inches. Average annual benefits are as follows:

Annual Benefits	Amount
Inundation Reduction	33,629,000
Location	2,299,000
Redevelopment	1,499,000
Advance Bridge Replacement	177,000
Intensification	28,403,000
Recreation	<u>743,000</u>
Total	66,750,000

FISCAL YEAR 2002: The requested amount of \$9,000,000 will be applied as follows:

Channels and Canals	7,500,000
Planning, Engineering, and Design	900,000
Supervision and Administration	<u>600,000</u>
Total	9,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-way, and dredged material disposal areas.	22,055,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	30,538,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	447,000	-
Pay 12.37 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood control structures.	<u>59,929,000</u>	
Total Non-Federal Costs	112,969,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

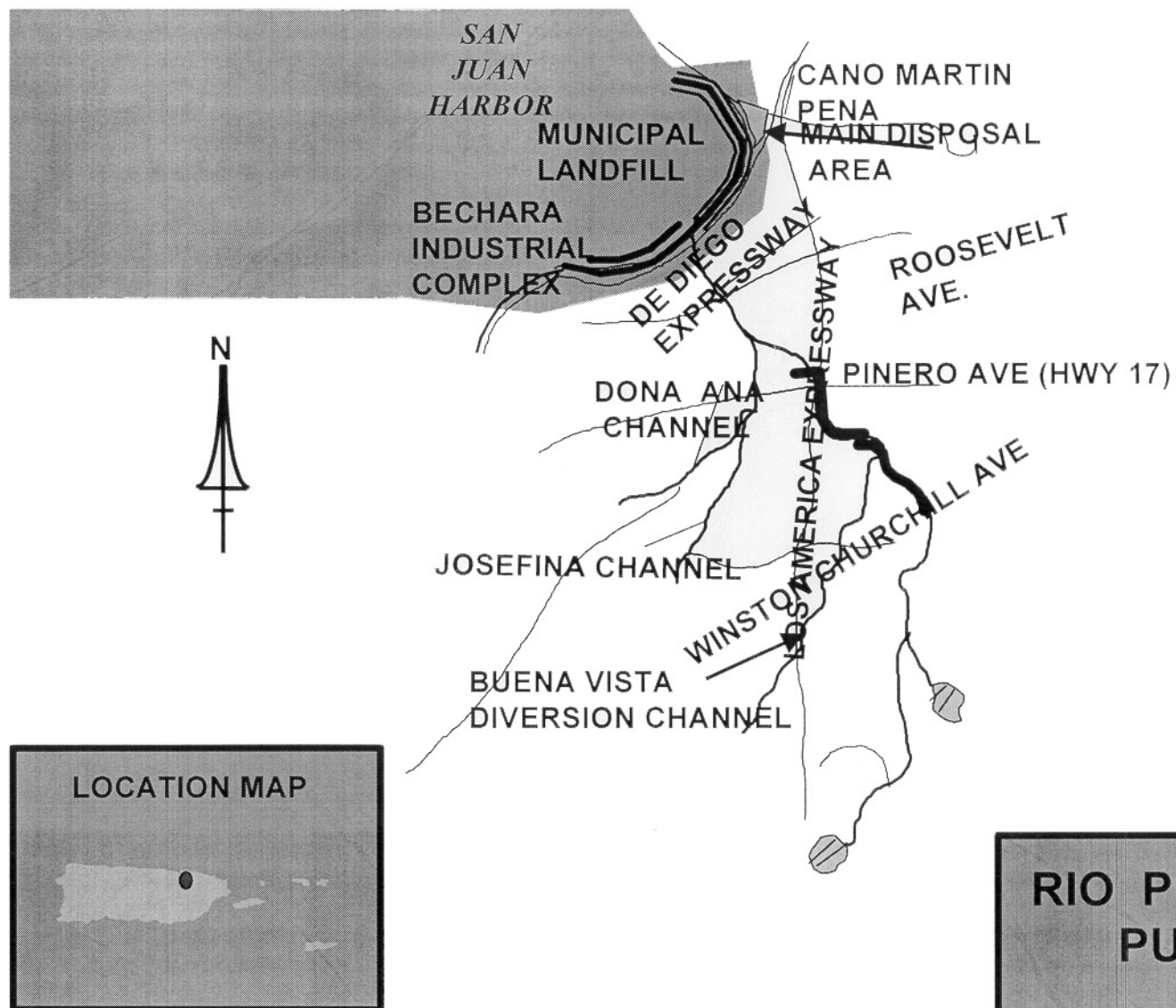
STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. A Project Cooperation Agreement for the project was executed in March 1994.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$331,000,000 is an increase of \$10,000,000 from the latest estimate (\$321,000,000) presented to Congress (FY 2001). The change includes the following items:

Item	Amount
Price Escalation on Construction Features	10,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the project was filed on 6 December 1985. The Finding of No Significant Impact (FONSI) was approved in July 1992.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994. The scheduled completion date is being determined.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Roanoke River Upper Basin, Virginia, Headwaters Area (Continuing)

LOCATION: The project is located on the Roanoke River in the City of Roanoke, Virginia.

DESCRIPTION: The project includes about 6.2 miles of channel widening along the 10 miles of river through the City of Roanoke, Virginia. Channel widening will be accomplished with the construction of a benched channel above the elevation of the average streamflow. Other flood damage reduction features include floodproofing at two locations, training walls to prevent floodwater intrusion into low areas along the river, replacement of two low-level bridges which constrict streamflows, and a flood warning system. Recreation facilities consist of a 2.9-mile recreation trail along the project reach and access and parking areas. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 and Energy and Water Development Appropriation Act of 1990.

REMAINING BENEFIT - REMAINING COST RATIO: 1.5 to 1 at 8-7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.01 to 1 at 8-7/8 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 8-7/8 percent (FY 1990).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in January 1990 at 1988 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$31,000,000			
Estimated Non-Federal Cost		\$ 16,300,000	Entire Project	21	Being Determined
Cash Contributions	3,687,000				
Other Costs	12,613,000				
Total Estimated Project Cost		\$47,300,000			
Allocations to 30 September 2000		\$6,466,000			
Conference Allowance for FY 2001		1,000,000			
Allocation for FY 2001		838,000	1/		
Allocations through FY 2001		7,304,000	24		
Allocation Requested for 2002		3,000,000	33		
Programmed Balance to Complete after FY 2002		20,696,000			
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$160,000 reduction assigned as savings and slippage and \$2,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

#### PHYSICAL DATA

##### Project Features:

Channel Excavation	27,000 linear feet
Training Wall	6,100 linear feet
Paved Recreation Trail	14,900 linear feet
Parking/Access Areas	3 each
Riprap	28,000 tons

##### Relocations:

Utility	3,880 linear feet
Roads	2,000 linear feet
Overhead Line	6,350 linear feet
Buildings	13 each
Bridges	2 each

PHYSICAL DATA - Continued

Land Acquisition (acres):	
Total Rights of Way Requirement	195
Flood Control Rights of Way	185
Disposal Areas (Temporary)	40
Recreation Rights of Way (Separable)	20
Right of Way Underwater	110

JUSTIFICATION: The project will provide improvements for flood protection and recreation. Most of the property that would be protected is industrial and commercial with a value of \$680,000,000. The average annual damages in the project area are estimated at \$5,777,000 at October 1988 price levels and 1988 level of development over the next 50 years if no flood control facilities are provided. The project would reduce these damages by \$3,126,200. The maximum flood of record, November 1985, caused damages estimated at \$112,424,000 under 1985 conditions of development and price levels. Damages at 1988 levels of development and October 1988 price levels would be \$119,997,000. Floodplain development is not promoted by the project. Return on investments by local businesses is adversely affected by the flood problem. Firms have to use resources to repair and attempt floodproofing that could be used for expansion and modernization. In this respect, return on investment is suppressed. The project will have a beneficial effect on a variety of firms and increase return on investment throughout the floodplain. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$3,126,200
Recreation	228,100
Total	\$3,354,300

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction of Channel Improvements	\$ 2,273,000
Continue Monitoring of Endangered Species	20,000
Continue Construction of Training Walls	155,000
Continue Construction of Recreation Facilities	214,000
Planning, Engineering and Design	88,000
Construction Management	250,000
Total	\$ 3,000,000

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

3 April 2001

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NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Provide all lands, easements, and rights of way including suitable spoil disposal areas	\$ 9,391,000	
	3,245,000	
Modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project.	10,000	
Pay 25 percent of the cost of the flood warning system (partially offset by a credit for lands, easements, rights of way, and relocations).	2,100,000	\$101,000
Pay 5 percent of the total cost allocated to flood control in cash in addition to all lands, easements, rights of way and relocations, and bear all costs of operation, maintenance, and replacement of flood control facilities.	1,187,000	9,000
Pay one-half of the separable cost allocated to recreation (partially offset by a credit for land, easements, rights of way and relocations) and bear all costs of operation, maintenance and replacement of recreation facilities	367,000	
Pay 25 percent of the cost of the non-structural floodproofing (partially offset by a credit for lands, easements, rights of way and relocations).		
Total Non-Federal Costs	\$16,300,000	\$110,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The City of Roanoke is the project sponsor. On 11 April 1989 the voters of the City of Roanoke approved the sale of \$7.5 million worth of bonds to pay Roanoke's required cash contribution, acquire lands that are not currently owned and pay for relocation of bridges and utilities. The Local Cooperation Agreement was executed on 25 June 1990. A supplement to the Local Cooperation Agreement addressing the reimbursement for the floodproofing of the hospital was executed in January 1993. Design and construction of the project had been deferred for eight years due to concerns the sponsor



STATUS OF LOCAL COOPERATION (continued):

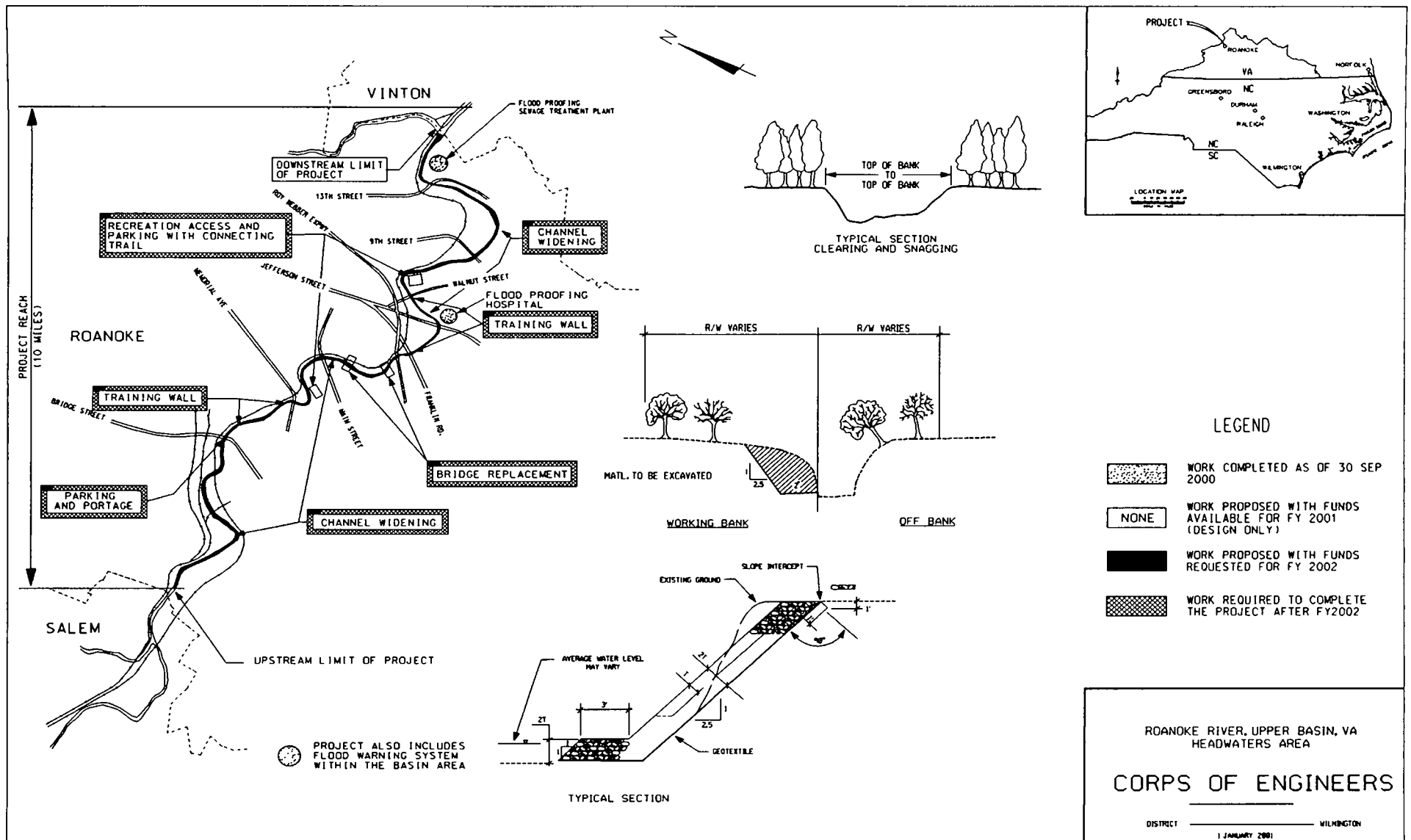
had over assuming liability for potential HTRW issues that might arise during project construction. The City in conjunction with the Corps, EPA and the Virginia Department of Environmental Quality conducted an extensive investigation and review of the project right of way to alleviate these concerns. Hazardous material was found at two sites. These sites have been cleaned by the land owner. Soil contamination was found at 14 other sites. A project action plan for the screening and disposal of this material has been prepared and reviewed by the sponsor and the Virginia Department of Environmental Quality. They have agreed with our assessment of the soil condition and our proposed land farming disposal method.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$31,600,000 is an increase of \$1,900,000 from the latest estimate (\$29,700,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	+\$ 900,000
Design Changes	450,000
Post Contract Award and other Estimating Adjustments	550,000
Total	+\$1,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in February 1985. A Finding of No Significant Impact for design changes was signed on 30 June 1989.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990. The project was modified by the Energy and Water Development Appropriations Act of 1990 to increase the total estimated project cost to \$29,000,000 (October 88 price levels). The Roanoke Logperch, which is located in the project area, was listed as an endangered species effective 18 September 1989 and will be monitored during project construction. Reimbursement for the Federal share of the floodproofing of Roanoke Hospital, as authorized by Section 102cc of the Water Resources Development Act of 1990, in the amount of \$501,000, was made in February 1993.



APPROPRIATION TITLE: Construction, General – Multiple Purpose Power

PROJECT: Richard B. Russell Dam and Lake, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River about 275 miles above the mouth, 16 miles southeast of Elberton, Georgia and between the existing J. Strom Thurmond and Hartwell Lakes.

DESCRIPTION: The project consists of a concrete gravity-type dam, flanked by earth embankments with a maximum height of 200 feet above the river. The total length of 5,616 feet consists of a 1,884-foot concrete section and embankments of 3,732 feet. The gate-controlled spillway has a design capacity of 800,000 c.f.s. The project includes the installation of 328 megawatts of conventional power completed in January 1986 and 320 megawatts of reversible pumped storage power for a total available capacity of 648 megawatts. All work is programmed.

AUTHORIZATION: Flood Control Act of 1966, modified by the Water Resources Development Act of 1976 and the Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially complete

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 3 1/4 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent (FY 1972).

BASIS OF BENEFIT - COST RATIO: Benefits are from the cost allocation study completed in December 1991 at October 1991 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	618,100,000		Entire Project	97	Being determined
Future Non-Federal Reimbursement	590,583,000				
Estimated Federal Cost (Ultimate)	27,517,000				
Estimated Non-Federal Cost	592,483,000				
Cash Contributions	1,900,000				
Reimbursements	590,583,000				
Total Estimated Project Cost	620,000,000				
Allocations to 30 September 2000	600,801,000				
Conference Allowance for FY 2001	2,666,000				
Allocation for FY 2001	3,034,000	1/			
Allocations through FY 2001	603,835,000	98			
Allocation Requested for 2002	3,000,000	98			
Programmed Balance to Complete after FY 2002	11,265,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$427,000 reduction assigned as savings and slippage, \$800,000 reprogrammed to the project, and \$5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA			
Dam		Relocations-Roads (Miles)	19.5
Type: Concrete Gravity, flanked by earth embankments		Railroads (Miles)	9.1
Maximum Height (Feet)	200	Initial Power Installation	
Length		4 Conventional Units (MW)	82
Concrete Section (Feet)	1,884	4 Pump Storage Units (MW)	80
Embankments (Feet)	23,732	Normal Average Head (Feet)	144
Spillway		Reservoir Capacity (Acre-feet)	
Type: Gate Controlled		Flood Control	140,000
Design Capacity (c.f.s)	800,000	Power	126,800
Lands and Damages (Acres)	53,112	Dead Storage	899,400
Type: Predominantly timber and Agricultural Improvements: Typical farm units			

JUSTIFICATION: The 648 megawatts installation, including pumped storage, will help meet the increased power requirements and rapid growth demands in this region. The output can be marketed and fully utilized immediately upon project completion in Federal Energy Regulatory Commission (FERC) supply areas 21, 22, and 23. This includes all of South Carolina, most of North Carolina, Georgia, Alabama, and parts of Mississippi and Florida. The FERC has stated repeatedly the need for this power source. This project will be an integral unit of the plan for development of the Savannah River Basin for flood control, navigation, power, and allied purposes. The recreational facilities will serve an area within a large zone of influences surrounding the three-lake complex of J. Strom Thurmond, Hartwell, and Richard B Russell lakes. The estimated initial attendance at the project was 1,000,000 and should exceed 4,600,000 in the early 2000's. Average annual benefits are as follows:

Annual Benefits	Amount
Power	52,995,000
Flood Control	177,000
Recreation	3,597,000
Fish and Wildlife	71,000
Area Redevelopment	4,212,000
Total	61,052,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue environmental monitoring of pumped storage operation	300,000
Continue work on JST 02 System contracts for pumped storage	800,000
Continue work on Main Breakers and Static Start	1,400,000
Planning, Engineering and Design	150,000
Construction Management	350,000
Total	\$3,000,000

NON-FEDERAL COST: In accordance with Public Law 89-72, agreements for recreation development with the States of Georgia and South Carolina have been executed and were approved by the Secretary of the Army 20 May 1974. The costs allocable to power are reimbursable, and will be reviewed and adjusted, based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Capital Cost allocated to power.	5,71,810,000	3,557,000
Pay, contribute in kind, or repay (repayment not to exceed 50 years) with interest, one-half of the separable costs allocated to recreation.	20,673,000	
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	0	249,000
Total Non-Federal Costs	592,483,000	3,806,000

STATUS OF LOCAL COOPERATION: The State of Georgia began payments for recreation reimbursements in May 1985. The State of South Carolina began payments in August 1985. Responsibility for repayment of power costs rests with the Southeastern Power Administration pursuant to Federal Laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$618,100,000 is the same as the latest estimate presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) on conventional installation was submitted to Council on Environmental Quality (CEQ) on 31 May 1974. A supplement on water quality to the final EIS was filed with CEQ in May 1976. The final EIS on pumped storage was filed with the Environmental Protection Agency (EPA) in October 1979. The Supplement on fish and wildlife mitigation to the final EIS was filed with the EPA in December 1981. A supplement to the final EIS on pumped storage was filed in August 1991. A final NEPA document (Environmental Assessment) now based on 4 ½ years of environmental testing is complete. It embodies those technical items that the Corps of Engineers (COE) and South Carolina have reached agreement on, relating to operational measures, construction of an O2 system to increase fish habitat and continued environmental monitoring of a commercial operation. The EA for Pumped Storage was completed in FY 1999 and the FONSI was signed in August 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1968. Funds to initiate land acquisition were appropriated in FY 1971 and allocated in FY 1972. Initial construction funds were appropriated in FY 1975.

A preliminary injunction halting the installation of pumped storage was issued on 23 May 1988. A hearing on the merits of our appeal for injunctive relief was held on 8 December 1988 in the 4<sup>th</sup> Circuit Court of Appeals in Richmond, Virginia. On 24 January 1989, the Richmond 4<sup>th</sup> Circuit Court of Appeals granted injunctive relief to the COE to only install the reversible pump turbines. Testing and operation is contingent on demonstrating through the supplemental EIS process that units can be operated in a responsible manner without unduly impacting existing fish habitat. With the record-of-decision on the Supplemental EIS, dated 4 September 1991, the Corps completed a settlement with the litigants to proceed forward into a phased testing and monitoring plan to address environmental issues concerning pumped storage. On 6 December 1991, the Federal District Court of Charleston, South Carolina, modified the pump storage injunction to permit testing of the first pumped storage units and permit advertising of the pumped storage conveyance channel.

On 8 April 1992, the Charleston District Federal Court granted injunctive relief to allow environmental testing of the pumped storage units from May 1992 through October 1993 (subsequently from March 1993 through October 1996) and allow the award of the dredging of the tailrace channel. This schedule conforms to the Federal Court and the Corps commitment to the resource agencies as stated in the supplement to the final environmental impact statement record-of-decision. Environmental clearance for dredging was attained 27 May 1994. Dredging the tailrace conveyance channel was tied to the phased testing process in accordance with the consent order and it was included in the final EIS on pumped storage. The dredging was completed in March 1995. The Vortex Fix scheduled for unit eight was awarded in February 1994 and installation was completed in December 1994. A second contract was awarded in February 1996 and completed in March 1996. This contract, a Rock Jetty Flow Diversion Structure, was fully successful in eliminating the remaining vortex influence on fish entrainment at Unit eight.

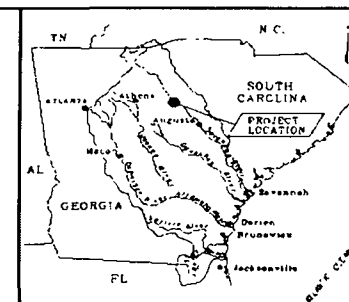
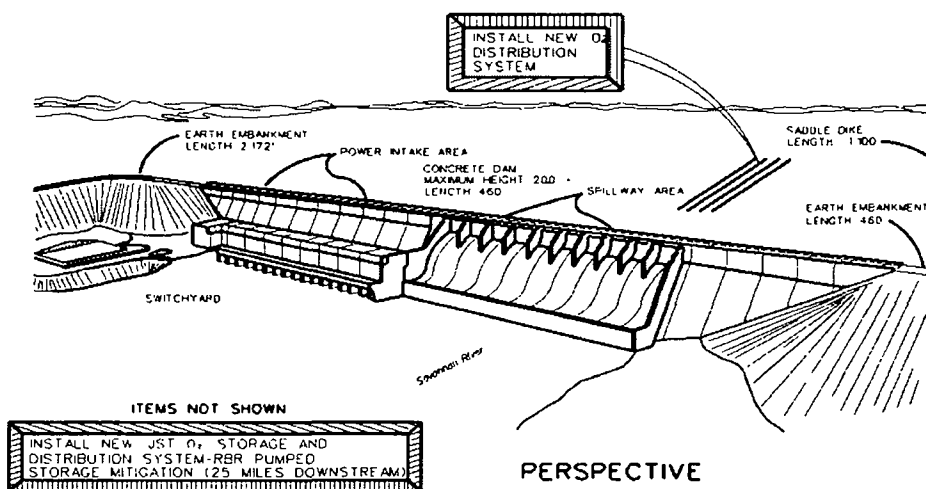
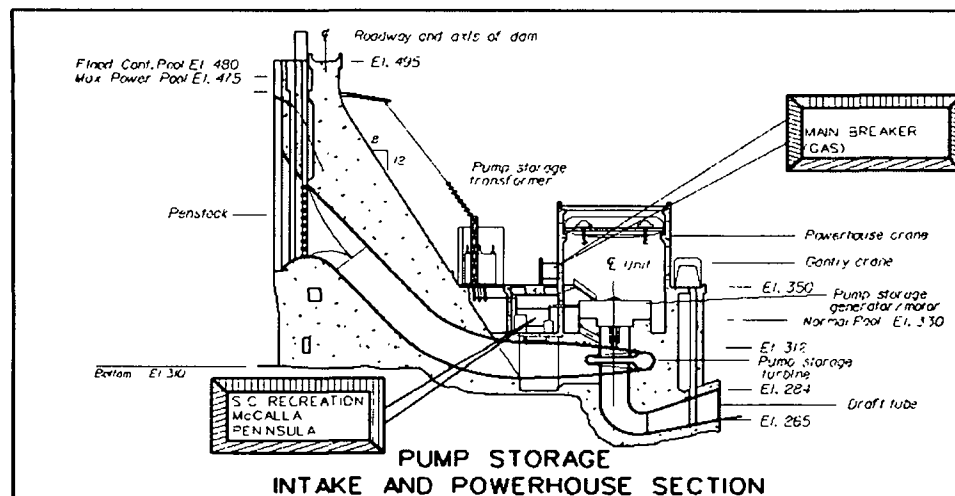
After 4 ½ years, environmental testing is now complete at Richard B. Russell Dam and Lake. The Savannah District completed the Final Phase III Environmental Report for Interagency Review and comment in August 1997. Review of the data from Phase III final testing of full operations (April 1996 through October 1996) indicates minimal environmental impact to the fishery and possible environmental impact to water quality due to thermal warming to 27 degrees centigrade, which exceeds the comfort range of large striped bass by one degree of the Tailwater Region. This thermal impact can exist in the summer months.

OTHER INFORMATION (Continued):

The South Carolina Department of Natural Resources requested full compensation for fish losses throughout the remaining life of the turbines (45 years) and a four month moratorium on springtime pumping as an offer to avoid final litigation action in Federal District Court. We have since agreed upon limited springtime pumping for the months of March, April, and May which will not impact the dependable annual capacity and marketing of this power, and will further reduce already very low numbers of springtime sport fish entrainment. The Corps and the Department of Justice cannot pay compensation for fish losses. The remaining impasse to reaching an agreement rests in the legal arena. The plaintiffs, SCDNR and NWF refuse to release USACE from the current injunction, because the Corps of Engineers could not agree to the state's demands for authority to approve any change in operation of the project and for payment to the state for fish killed. The Government also refused to construct recreational facilities demanded by the State of Georgia unrelated to mitigation for this project. The Savannah District will implement springtime pumping limitations and other agreed upon mitigation measures as described herein, which are appropriate, and within our authorities. The commitment and decision to operate the project in accordance with these measures are contained in the final NEPA documentation signed 17 August 1999. The NEPA decision document and Finding of No Significant Impact (FONSI) was signed by Colonel Joseph K. Schmitt, the Savannah District Commander. Funding for the JST o2 system and other measures have been approved but construction and implementation is dependent upon release from the injunction.

The Pumped Storage can be declared commercially available in FY 2001 with a favorable decision from U.S. District Court. A Hearing on the Corps' request for summary judgement to dismiss the injunction was conducted on 17 October 2000 in the Charleston, SC U.S. District Court. We expect a decision before the end of the calendar year. If the decision is appealed to the 4<sup>th</sup> Circuit Court in Richmond, VA, then a dismissal of the injunction may take another four to six months.





## VICINITY MAP

## STATUS OF WORK

- WORK COMPLETED AS OF 30 SEPTEMBER 2000
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2001
- WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002

## ITEMS NOT SHOWN

- REAL ESTATE CLOSEOUT ACQUISITION CONTRACTS
- COMPLETE ALL TAILRACE WORK, PROMENADE ROOF REPLACEMENT AND RENNOVATIONS IN POWERHOUSE
- COMPLETE PUMPED STORAGE NEPA DOCUMENTATION & FONSI
- PURSUUE COMMERCIAL POWER AND CONTINUE ENVIRONMENTAL MONITORING FOR PUMPED STORAGE OPERATION

MULTIPLE PURPOSE PROJECTS INCLUDING POWER  
**RICHARD B. RUSSELL DAM AND LAKE GEORGIA AND SOUTH CAROLINA**  
 WORK COMPLETED IN PROGRESS & PROPOSED  
 SAVANNAH DISTRICT  
 SOUTH ATLANTIC DIVISION  
 1 FEBRUARY 2001

APPROPRIATION TITLE: Construction, General – Dam Safety Assurance (Multiple Purpose Power)

PROJECT: Hartwell Lake, Clemson Upper and Lower Diversion Dams, South Carolina (Seismic Deficiency Correction) (Continuing)

LOCATION: The Hartwell project is located on the Savannah River, Georgia and South Carolina, 289 miles above the mouth, 89 miles above Augusta, Georgia, and 67 miles above J. Strom Thurmond Dam. The Clemson Diversion Dams which are a part of the Hartwell project are located adjacent to Clemson, South Carolina, in the Seneca River channel, South Carolina, approximately 20 miles above the confluence of the Seneca River and the Savannah River, and 27 miles above Hartwell Dam.

DESCRIPTION: The Clemson Diversion Dams were constructed in 1960-61 as part of the Hartwell project to prevent flooding of valuable lands, recreation facilities, structures, roads, and athletic facilities of Clemson University by impounded water behind Hartwell Dam. The dams were constructed of mostly random earth fill and founded on alluvium with inclined chimney drain and horizontal drainage blanket for internal seepage control. Concrete cutoff walls were installed in 1983-84 to alleviate seepage problems, which had occurred since construction. The Upper Diversion Dam has a maximum height of 75 feet and a length of 2,100 feet. The Lower Diversion Dam has a maximum height of 75 feet and a length of 3,000 feet. The design of the dams, which was performed in the late 1950's, did not consider earthquake loading. Both dams were constructed on floodplain alluvium, and exploratory soil borings have revealed the presence of a continuous layer of loose, saturated cohesionless materials in the foundation of each dam.

AUTHORIZATION: The Flood Control Acts of 1950 and 1958.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT - COST RATIO: Benefits are non-monetary.

BASIS OF BENEFIT - COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	8,741,000		Entire Project	1	Being determined
Future Non-Federal Reimbursement	1,180,000				
Estimated Federal Cost (Ultimate)	7,561,000				
Estimated Non-Federal Cost					
Cash Contributions	0				
Reimbursements	1,180,000				
Total Estimated Project Cost	8,741,000				
Allocations to 30 September 2000	0				
Conference Allowance for FY 2001	0				
Allocation for FY 2001	400,000				
Allocations through FY 2001	400,000	5			
Allocation Requested for 2002	2,500,000	33			
Programmed Balance to Complete after FY 2002	5,841,000				
Unprogrammed Balance to Complete after FY 2002	0				

#### PHYSICAL DATA

##### Upper Diversion Dam:

Constructed of earth fill on alluvium with inclined chimney drain, horizontal drainage blanket, and concrete cutoff walls. Length is 2,100 feet. Average height is 55 feet.

##### Lower Diversion Dam:

Constructed of earth fill on alluvium with inclined chimney drain, horizontal drainage blanket, and concrete cutoff walls. Length is 3,000 feet. Average height is 55 feet.

Division: South Atlantic

District: Savannah

Hartwell Lake, Clemson Upper and Lower Diversion Dams, SC

3 April 2001

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JUSTIFICATION: The results of dynamic analyses, including finite element analyses, performed using data obtained from field and laboratory investigations, indicate that upon the occurrence of a maximum credible earthquake (MCE) event, a liquefaction failure of the downstream section of the Clemson Upper and Lower Diversion Dams could occur. The MCE event for the dams has a peak ground acceleration of 0.19g. More critically, additional analyses indicate that the downstream failure could be triggered by lesser earthquake events having acceleration in the range of 0.07 to 0.10g. The earthquake producing this level of shaking has a return frequency of about 475 years. Stated another way, such an event has about a 1 in 10 chance of occurring in any 50-year period. This is a relatively frequent, high probability event. Failure of the downstream slopes would cause severe cracking of the embankments. The highly erodible nature of the silty sands and sandy silts of which the embankments are constructed will lead to rapid erosion through the cracks which will result ultimately in catastrophic failure of the dams and complete loss of the reservoir pool. In the event of dam failure, 390 acres of Clemson University would be inundated. This area has a constant low population, which increases to 100,000 people during a football game. Substantial loss of life could occur, in addition to physical and economic damages to the university totaling 1.158 billion dollars. The effects of a dam failure on the local economy would also be devastating and adverse economic impact would extend to the nearby small communities whose economic reliance on the university is considerable. Remediation of the downstream section of each dam is recommended to assure the dams will survive and remain safe during and following the MCE event. The recommended remediation plan utilizes overlapping deep soil mix columns penetrating through the loose alluvium layer to create 50-foot long transverse walls oriented perpendicular to the axis of each dam. The walls would serve as shear walls to resist the earthquake loading. A long wall parallel to the dam axis would be constructed at the upstream end of the transverse walls. This wall would prevent loosened alluvium from squeezing or flowing between the transverse walls. The proposed remediation will prevent catastrophic failure of the dams and preclude loss of life and severe economic consequences to Clemson University and the surrounding region. In accordance with ER 1110-2-1155, Dam Safety Assurance Program, dated 12 September 1997, a South Atlantic Division (SAD) approved dam safety evaluation report was submitted to Headquarters USACE (CECW-EP) on 18 May 2000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate Construction	2,250,000
Planning, Engineering, and Design	80,000
Construction Management	170,000
Total	\$2,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

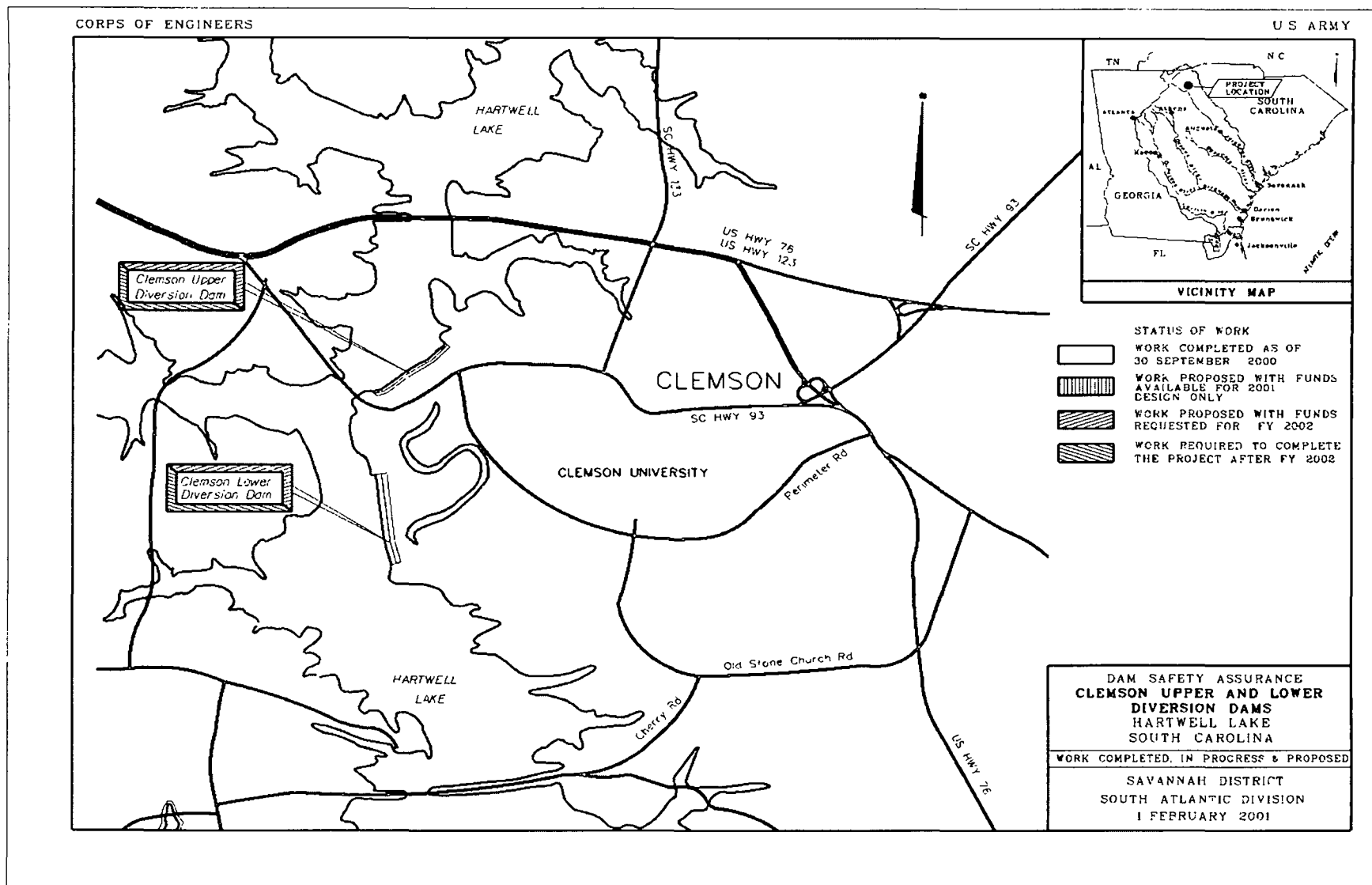
	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Pay 15 percent of the cost allocated to hydropower.	1,169,500	
Pay 15 percent of the cost allocated to water supply.	10,500	
Total Non-Federal Costs	1,180,000	

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal Corps cost estimate of \$8,741,000 is the initial estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The May 2000 Dam Safety Assurance Program Evaluation Report concluded that no significant adverse environmental impacts would result from the implementation of the proposed recommended remediation plan. Furthermore, implementation of the recommended remediation plan would comply with the Executive Order 12898 concerning environmental justice. In accordance with 33 CFR 230.9(b), the project is categorically excluded from NEPA coordination. No further documentation is required.

OTHER INFORMATION: Initial Construction General Funds were provided in FY 2001 from the Dam Safety Assurance Program. Funds for preparing the Dam Safety Assurance Program Evaluation Report were provided by the civil works O&M program.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Central and Southern Florida, Florida (Continuing)

LOCATION: The project is located in the southeasterly 18 counties of the State of Florida. Principle areas are the Upper St. Johns River Basin, Kissimmee River Basin, Lake Okeechobee-Everglades Area, and East Coast-Everglades Area.

DESCRIPTION: The Central and Southern Florida Project involves an area of about 18,000 square miles, which includes all or part of 18 counties in central and southern Florida. It embraces Lake Okeechobee, its regulatory outlets, the Florida Everglades, The Upper St. Johns (which is not part of Everglades ecosystem) and Kissimmee River Basins, and the lower east coast of Florida. Project purposes are flood control; municipal, industrial, and agricultural water supply; prevention of salt water intrusion, water supply for Everglades National Park; fish and wildlife preservation; navigation; and recreation. In addition to completed work, portions of the Upper St. Johns River, South Dade County, Port Mayaca Recreation, Kissimmee Basin, West Palm Beach Canal, Agricultural Area, Lake Okeechobee, Manatee Pass-Through Gates, North Dade County, and the Comprehensive Everglades Restoration Program separate elements are currently programmed; all remaining separable elements are unprogrammed. Modified Water Deliveries to Everglades National Park will be accomplished with funds transferred to the Corps of Engineers by National Park Service. The restoration of the Kissimmee River Project is being accomplished with a separate appropriation.

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1960, 1962, 1965, and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, and the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 1999, and 2000.

REMAINING BENEFIT - REMAINING COST RATIO: 4.0 to 1 at 2-1/2 percent.

TOTAL BENEFIT - COST RATIO: 4.8 to 1 at 2-1/2 percent.

INITIAL BENEFIT - COST RATIO: 2.1 to 1 at 2-1/2 percent (FY 1950).

BASIS OF BENEFIT - COST RATIO: Benefits are a composite of the latest benefits available from the individual reports of the separable elements of the total project.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)		2,219,000,000		Misc Completed Works	100	Oct 1992
Programmed Construction	1,631,345,000			Upper St. Johns River	94	Being determined
Unprogrammed Construction	587,655,000			West Palm Beach	40	Being determined
				South Dade County	31	Being determined
Estimated Federal Cost (OFA)		46,000,000		Manatee Pass Gates	24	Being determined
Programmed Construction	46,000,000			Everglades Restoration	0	Being determined
Unprogrammed Construction	0					
				Entire Project	30	Being determined
Estimated Non-Federal Cost		1,568,200,000				
Programmed Construction	1,225,829,000					
Cash Contributions	500,929,000					
Other Costs	724,900,000					
Estimated Non-Federal Cost						
Unprogrammed Construction	342,371,000					
Cash Contributions	168,006,000					
Other Costs	174,365,000					
Total Estimated Programmed Construction Cost		2,903,174,000				
Total Estimated Unprogrammed Construction Cost		930,026,000				
Total Estimated Project Cost		3,833,200,000				
Allocations to 30 September 2000		505,432,000				
Conference Allowance for FY 2001		80,423,000				
Allocation for FY 2001		54,586,000	1/			
Allocations through FY 2001		560,018,000	25%			
Allocation Requested for 2002		95,278,000	29%			
Programmed Balance to Complete after FY 2002		973,049,000				
Unprogrammed Balance to Complete after FY 2002		587,655,000				

1/ Reflects \$12,868,000 reduction assigned as savings and slippage and \$12,811,000 reprogrammed from the project and \$158,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: South Atlantic

District: Jacksonville

Central and Southern Florida, FL

3 April 2001

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PHYSICAL DATA			
Pumping Plants (Number)	35	Locks (Number)	25
Floodway Control & Diversion Structures (Number)	235	Canals (Miles)	977
Relocations-Highways (Bridges)	2	Levees (Miles)	1,008
Relocations-Railroads (Bridges)	56		

JUSTIFICATION: The Central and Southern Florida project was originally authorized and designed as a flood control project in response to the maximum flood of record in 1947. Existing damages, without the project, were \$59,693,000 (\$366,903,000 at 1 October 1989 price levels). The 1947 flood frequency averages 1 in 25 years over the project area, with an average duration of 70 days. Minor floods occur almost yearly in the project area and major floods occur frequently. This situation is aggravated by wet antecedent conditions followed by heavy seasonal rainfall. The average degree of protection provided by the completed project is about a 10-year flood frequency protection. Approximately 2,853,700 acres are protected. This encompasses 2,765,100 agricultural acres and 88,600 urban acres. The present value of property subject to flood damages is about \$12.3 billion. Property types include residential, commercial, industrial, public, and agricultural.

Average annual damages without the project would be \$110,580,000 and \$22,536,000 with the project. Damages attributable to urban property are 16.7 percent and 83.3 percent are attributable to rural property. The proportion of average annual damages prevented are 36.8 percent to existing development and 63.2 percent to future development.

Under Public Law 90-483 (River and Harbor Act of 1968), additional project features for the purpose of water supply were added to the Central and Southern Florida project. The storage capacity of the entire project is 2,953,000 average annual acre-feet divided into approximately 1,600,000 acre-feet for urban use by 2020 and 740,000 acre-feet for agricultural use by 2020. The Everglades National Park receives virtually its entire source of water (other than direct rainfall) from the Central and Southern Florida Project. The pumping rate for irrigation of 590 square miles would yield approximately 917,850 acre-feet per year for agricultural use. Recurrent drought conditions with resultant low flows require supplemental irrigation to ensure adequate crops yields.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	235,213,000
Municipal and Industrial Water Supply	25,664,000
Agricultural Water Supply	27,614,000
Recreation	11,109,000
Fish and Wildlife	238,000
Area Redevelopment	<u>3,012,000</u>
Total	302,850,000

JUSTIFICATION (Continued):

Public Law 90-483 in addition to Public Law 101-229 (Everglades National Park Protection and Expansion Act) have authorized modifications to the project for environmental restoration in the C-111 basin. The South Dade County effort will restore natural hydrologic conditions in Taylor Slough within Everglades National Park for the purpose of restoring the historic diversity and abundance of the native flora and fauna.

FISCAL YEAR 2002: The requested amount of \$95,278,000 will be applied as follows:

Continue construction of channels, canals, and pumping plants for South Dade County	6,919,000
Continue construction of channels, canals, levees, floodwalls, and flood control structures for Upper St. Johns River Basin	2,168,000
Continue construction of levees, floodwalls, pumping plants, and floodway control for West Palm Beach Canal	47,862,000
Continue construction of locks, channels, and canals for Manatee Pass-Through Gates	1,587,000
Complete the feasibility phase of the Central and Southern Florida Project	2,496,000
Engineering and Design for South Dade County	2,609,000
Engineering and Design for West Palm Beach Canal	297,000
Engineering and Design for Manatee Pass-Through Gates	60,000
Engineering and Design for Comprehensive Everglades Restoration Plan	27,961,000
Construction Management	<u>3,319,000</u>
Total	95,278,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation and the Water Resources Development Act of 1986 and 1996, as applicable, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Upper St. Johns River Basin		
Provide lands, easements, rights of way, and dredged material disposal areas.	86,232,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	11,060,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operations, maintenance, repair, and replacement of recreational facilities.	<u>3,208,000</u>	<u>82,000</u>
Total	100,500,000	82,000
West Palm Beach Canal		
Provide lands, easements, rights of way, and dredged material disposal areas.	11,129,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,400,000	
Pay 12.8 percent of the separable costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of facilities.	<u>13,271,000</u>	<u>289,800</u>
Total	25,800,000	289,800

Requirements of local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
South Dade County		
Provide lands, easements, rights of way, and dredged material disposal areas.	116,452,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	330,000	
Pay on-half of the cost of the project assigned to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	<u>24,630,000</u>	<u>845,000</u>
Total	141,412,000	845,000
Manatee Pass-Through Gates		
Pay applicable percentage based upon authorized cost share for each particular project.	<u>2,300,000</u>	
Total	2,300,000	
Comprehensive Everglades Restoration Plan		
Provide lands, easements, rights of way, and dredged material disposal areas.	462,512,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		
Pay on-half of the cost of the project assigned to flood control and bear one half of the cost of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	<u>409,905,000</u>	
Total	872,417,000	

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation (Continued)		
Completed Works	83,400,000	
Unprogrammed Works	<u>342,371,000</u>	
Total Non-Federal Costs	1,568,200,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida project except for the Upper St. Johns River portion of the project. Local interest voluntarily executed a supplemental assurances contract which was approved by the District Engineer on 1 July 1972 for all modifications to the project. Assurances of local cooperation were accepted from the St. Johns River Water Management District for the Upper St. Johns River portion on 30 December 1987. The Project Cooperation Agreement for the South Dade County separable element was executed with the South Florida Water Management District in January 1995. The Design Agreement for the Comprehensive Everglades Restoration Plan (CERP) was signed on 12 May 2000. Additional Design Agreements for CERP features are scheduled to be executed in FY01 with Seminole Tribe of Florida, Miccosukee Tribe of Florida, Lee County, Florida Department of Environmental Protection, and Miami-Dade County.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,219,000,000 is an increase of \$109,726,000 over the latest estimate (\$2,109,274,000) submitted to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$(132,000,000)
Design Changes	90,200,000
Schedule Changes	<u>151,526,000</u>
Total	\$109,726,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The latest Environmental Impact Statement for the project was for the West Palm Beach Canal separable element and was filed with the Environmental Protection Agency in June 1998.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction were appropriated in FY 1950. The Everglades National Park Protection and Expansion Act, signed 13 December 1989, authorizes construction of structural works required for improved water deliveries to Shark River Slough in Everglades national Park, construction of flood protection works for the residential area in the East Everglades, and acquisition of 107,600 acres of privately owned wetlands in the East Everglades. The Department of the Interior and the State of Florida would acquire the land and the Secretary of the Army would construct all project modifications with funds transferred to the Corps of Engineers by the National Park Service for this purpose. All Federal funding for implementation of this project is being appropriated through the Department of Interior appropriations and transfers are made to the Corps of Engineers as needed for modifications to the Central and Southern Florida project. This authorization also included modification of the South Dade County separable element to improve the natural resources in Taylor Slough in Everglades National Park and was funded through the Corps Central and Southern Florida project appropriation.

The Kissimmee Restoration Project was authorized by the Water Resources Development Act of 1992. It is being funded by a separate appropriation. The project cooperation agreement was executed in March 1994. Engineering and design is underway, and construction was initiated in Fiscal Year 97.

The Water Resources Development Act of 1992 authorizes the Chief of Engineers to review the Central and Southern Florida project to determine whether modifications to the existing project are advisable at the present time due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation. The central organizing theme of the study is restoration of the Everglades ecosystem while accommodating other demands for water and related land resources in south Florida. Recognizing the complexity of ecological restoration and the extensive interaction between the ecosystem and other uses of water and related land resources, oversight of the reconnaissance study was provided by a South Florida Ecosystem Restoration Task Force, which will continue to provide policy guidance, study coordination, and appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that a report be submitted to Congress, along with a Programmatic Environmental Impact Statement, in July 1999. The Final Integrated Feasibility Report and Programmatic Environmental Impact Statement was submitted to Congress on 01 July 1999. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 authorized funds for the Government to initiate design of elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project.

The Water Resources Development Act of 1996 also legislatively established the Task Force and expanded its membership to include State and local agency representatives. The Task Force, along with the Governor's Commission for the Everglades, is providing assistance to the Comprehensive Everglades Restoration Plan project development team.

The Indian River Lagoon Feasibility Study was initiated in 1996. This study is evaluating potential modifications to the Central and South Florida Project for ecological restoration of Indian River Lagoon system.

The Water Resources Development Act of 2000 authorized the Comprehensive Everglades Restoration Plan as the framework for modifications and operational changes to the Central & Southern Florida Project. In addition, specific authorization was provided for 10 projects totaling \$1.1 billion (including \$100 million for adaptive assessment and monitoring programs) and 4 pilot projects totaling \$69 million, and to allow for implementation of projects under a programmatic authority, not to exceed \$206 million. Two additional pilot projects were authorized in the Water Resources Development Act of 1999 for \$206 million.

SUMMARIZED FINANCIAL DATA:

Upper St. Johns River Basin

Estimated Federal Cost		94,000,000
Programmed Construction	88,320,000	
Unprogrammed Construction	5,680,000	
Estimated Non-Federal Cost		100,500,000
Programmed Construction	98,596,000	
Cash Contributions	1,304,000	
Other Costs	97,292,000	
Estimated Non-Federal Cost		
Unprogrammed Construction	1,904,000	
Cash Contributions	1,904,000	
Other Costs	0	
Total Estimated Programmed Construction Cost		186,916,000
Total Estimated Unprogrammed Construction Cost		7,584,000
Total Estimated Project Cost		194,500,000

REMAINING BENEFIT-REMAINING COST RATIO: 2.7 to 1 at 6 5/8 percent.

TOTAL BENEFIT-COST RATIO: 3.0 to 1 at 6 5/8 percent.

SUMMARIZED FINANCIAL DATA (Continued):

South Dade County

Estimated Federal Cost		141,588,000
Programmed Construction	141,588,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		141,412,000
Programmed Construction	141,412,000	
Cash Contributions	24,630,000	
Other Costs	116,782,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		283,000,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		283,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable



SUMMARIZED FINANCIAL DATA (Continued):

West Palm Beach Canal

Estimated Federal Cost (COE)		203,700,000
Programmed Construction	203,700,000	
Unprogrammed Construction	0	
Estimated Federal Cost (OFA)		46,000,000
Programmed Construction	46,000,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		25,800,000
Programmed Construction	25,800,000	
Cash Contributions	13,271,000	
Other Costs	12,529,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		275,500,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		275,500,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued):

Manatee Pass-Through Gates

Estimated Federal Cost			11,300,000
Programmed Construction		11,300,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,300,000
Programmed Construction		2,300,000	
Cash Contributions	2,300,000		
Other Costs	0		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			13,600,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			13,600,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued):

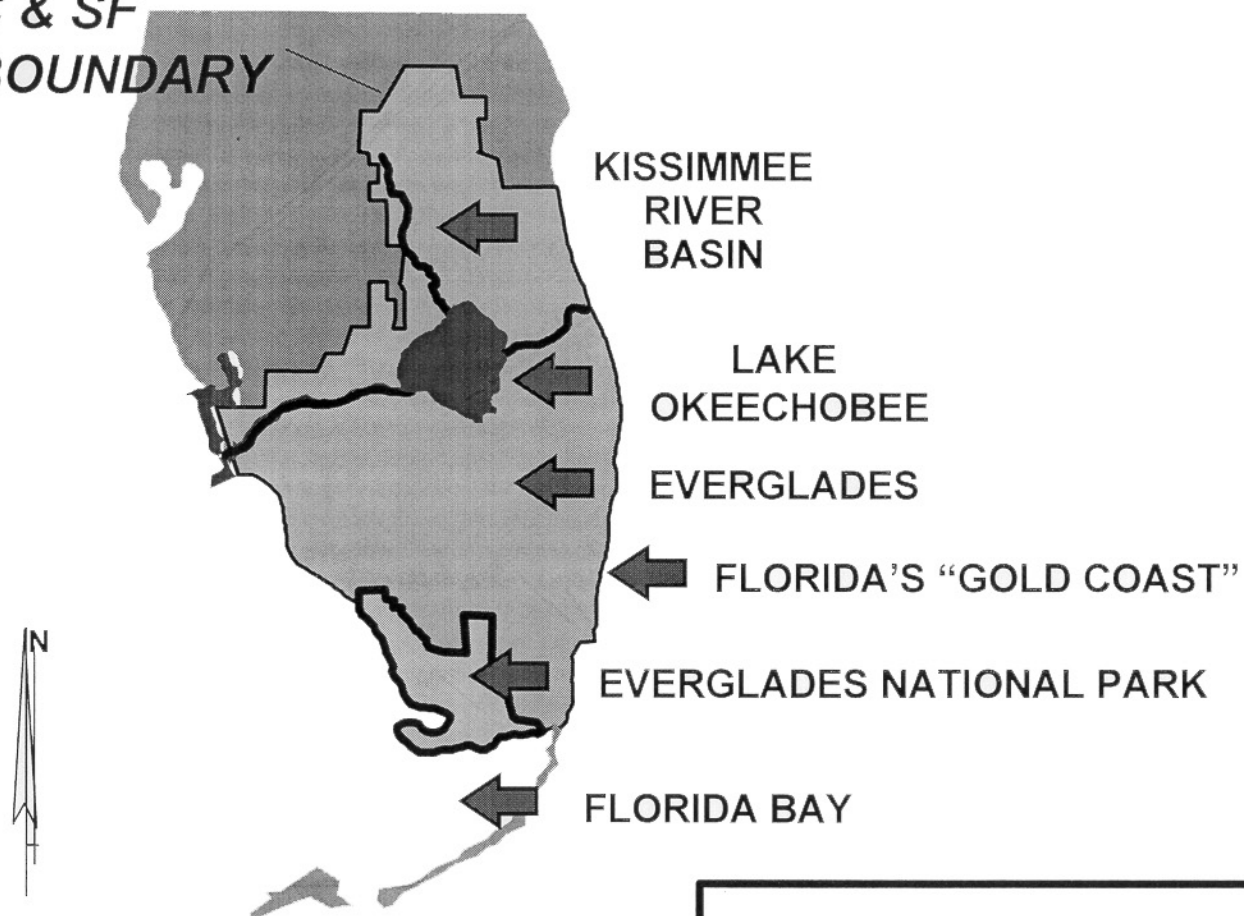
Comprehensive Everglades Restoration Plan

Estimated Federal Cost		876,033,000
Programmed Construction	876,033,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		872,417,000
Programmed Construction	872,417,000	
Cash Contributions	403,395,000	
Other Costs	469,022,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		1,748,450,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		1,748,450,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

**C & SF  
BOUNDARY**



**CENTRAL AND SOUTHERN  
FLORIDA PROJECT**

APPROPRIATION TITLE: Construction, General - Environmental Restoration

PROJECT: Everglades and South Florida Ecosystem Restoration, FL (Continuing)

LOCATION: The projects will be within the boundaries of the Central and Southern Florida (C&SF) Project including the Everglades, the Florida Keys and the contiguous and near-shore waters of South Florida. The project is located in the southeasterly 18 counties of the State of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee-Everglades Area, East Coast-Everglades Area, and Big Cypress Basin.

DESCRIPTION: Critical Restoration Projects must meet the following criteria: be within the C&SF Project and its near shore waters; provide immediate, independent, and substantial ecosystem restoration, protection, and preservation benefits; cost less than \$25 million in Federal funds; be generally consistent with the Governor's Commission's Conceptual Plan; and have a local sponsor to contribute 50% of the total project cost. Projects underway are: Florida Keys Carrying Capacity, East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern CREW, Lake Okeechobee Water Retention, 10 Mile Creek, and Lake Trafford.

AUTHORIZATION: Water Resources Development Act of 1996, as modified by the Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

TOTAL BENEFIT - COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

INITIAL BENEFIT - COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

BASIS OF BENEFIT - COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimate Federal Cost	75,000,000		Total Project	9	Being Determined
Estimated Non-Federal Cost	73,968,000				
Cash Contributions	49,601,000				
Other Costs	24,367,000				
Total Estimated Project Cost	148,968,000				
Allocations to 30 September 2000	11,254,000				
Conference Allowance for FY 2001	20,525,000	1/			
Allocation for FY 2001	8,201,000				
Allocations through FY 2001	19,455,000	31%			
Allocation Requested for FY 2002	19,876,000	52%			
Programmed Balance to Complete after FY 2002	35,669,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$3,284,000 reduction assigned as savings and slippage, \$40,000 rescinded in accordance with the Consolidated Appropriation Act, 2001 and \$9,000,000 reprogrammed from the project..

PHYSICAL DATA)  
Pumping Plants (Number) 3

JUSTIFICATION: The C&SF Project has successfully provided flood control, water supply benefits, recreation, and navigation in accordance with its authorized purposes. However, there has been substantial degradation in the region's natural resources associated with the water management system. Furthermore, development in the project area has far surpassed projections in the initial design of the comprehensive plan for the C&SF Project in 1948. WRDA 1996 authorized implementation of Critical Projects that will provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The projects will be justified on the basis of those benefits.

Division: South Atlantic

District: Jacksonville

Everglades and South Florida Ecosystem Restoration, FL

3 April 2001

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FISCAL YEAR 2002: The requested amount of \$19,876 will be applied as follows:

Initiate construction of channels and canals	\$ 5,303,000
Initiate construction of reservoirs	7,501,000
Land Reimbursement	5,211,000
Planning, Engineering and Design	854,000
Construction Management	<u>1,007,000</u>
Total	19,876,000

NON-FEDERAL COST: The Non-Federal project sponsor(s) will provide at least 50% of the total project cost. The Non-Federal contribution can be through in-kind services, cash contributions, or any combination that is approved in the Project Cooperation Agreement.

STATUS OF LOCAL COOPERATION: PCA's executed 07 January 2000 for East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. PCA executed Dec 1998 for Florida Keys Carrying Capacity. Local sponsors include: South Florida Water Management District (SFWMD), Seminole Tribe of Florida, and the Department of Community Affairs (DCA).

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$75,000,000 is an increase of \$208,000 from the latest estimate (\$74,792,000) submitted to Congress (FY2001). This change includes:

Design changes	<u>\$208,000</u>
Total	208,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Appropriate NEPA documents were prepared and finalized prior to execution of the PCA.

OTHER INFORMATION: None

SUMMARIZED FINANCIAL DATA.

Lake Okeechobee

Estimated Federal Cost		8,180,000
Estimated Non-Federal Cost		8,180,000
Cash Contributions	1,080,000	
Other Costs	7,100,000	
Total Estimated Project Cost		16,360,000

Southern CREW

Estimated Federal Cost		6,010,000
Estimated Non-Federal Cost		6,011,000
Cash Contributions	5,661,000	
Other Costs	350,000	
Total Estimated Project Cost		12,021,000

East Coast Canal Structures

Estimated Federal Cost		1,108,000
Estimated Non-Federal Cost		1,109,000
Cash Contributions	884,000	
Other Costs	225,000	
Total Estimated Project Cost		2,217,000



SUMMARIZED FINANCIAL DATA (Continued):

Western C-11 Basin

Estimated Federal Cost		6,071,000
Estimated Non-Federal Cost		6,070,000
Cash Contributions	5,795,000	
Other Costs	275,000	
Total Estimated Project Cost		12,141,000

Seminole Big Cypress

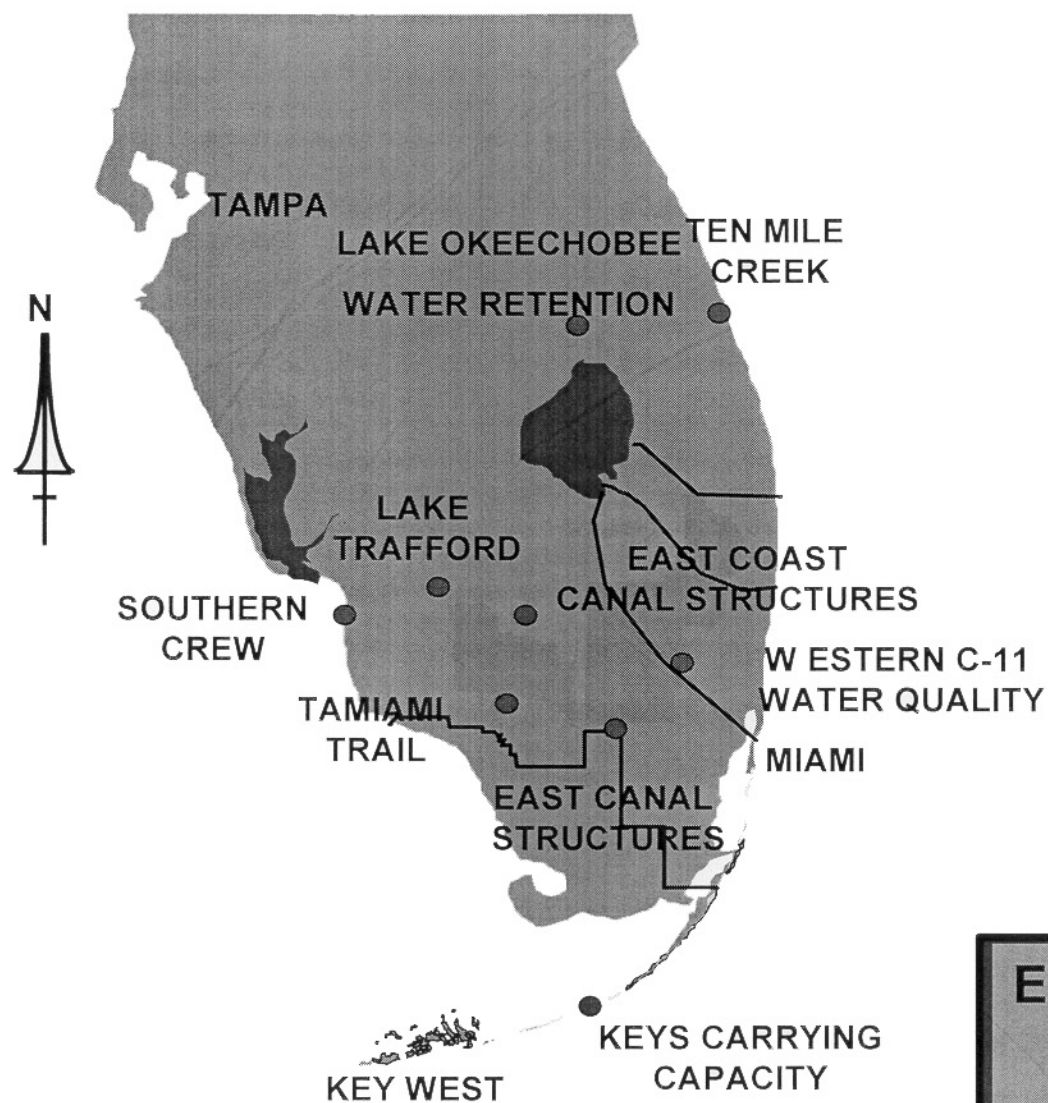
Estimated Federal Cost		22,121,000
Estimated Non-Federal Cost		22,127,000
Cash Contributions	14,610,000	
Other Costs	7,517,000	
Total Estimated Project Cost		44,248,000

Ten-Mile Creek

Estimated Federal Cost		14,533,000
Estimated Non-Federal Cost		14,533,000
Cash Contributions	9,358,000	
Other Costs	5,175,000	
Total Estimated Project Cost		29,066,000

SUMMARIZED FINANCIAL DATA (Continued):

Tamiami Trail		
Estimated Federal Cost		4,168,000
Estimated Non-Federal Cost		4,168,000
Cash Contributions	3,943,000	
Other Costs	225,000	
Total Estimated Project Cost		8,336,000
Lake Trafford		
Estimated Federal Cost		8,770,000
Estimated Non-Federal Cost		8,770,000
Cash Contributions	6,770,000	
Other Costs	2,000,000	
Total Estimated Project Cost		17,540,000
Keys Carrying Capacity		
Estimated Federal Cost		3,000,000
Estimated Non-Federal Cost		3,000,000
Cash Contributions	1,500,000	
Other Costs	1,500,000	
Total Estimated Project Cost		6,000,000



## EVERGLADES ECOSYSTEM RESTORATION, FLORIDA

APPROPRIATION TITLE: Construction, General - Local Protection

PROJECT: Kissimmee River, Florida (Continuing)

LOCATION: The Kissimmee River basin is approximately 3,000 square miles in size. It stretches from the southern Orlando area southward to Lake Okeechobee in central Florida. The project to restore the Kissimmee River has two component parts; the upper basin, referred to as the Headwaters Revitalization, and the lower basin, referred to as the Kissimmee River Restoration. The project was authorized in the Water Resources Development Acts of 1988 and 1992.

DESCRIPTION: The upper basin portion of the project consists of water regulation schedule modifications, canal and structure improvements, and land acquisition. This will result in environmental benefits in the upper chain of lakes and in the lower basin. More natural fluctuations of water levels will enhance the peripheral marshes of the lakes. Reestablishing a more natural timing of flows to the lower basin will result in restoration or enhancement of the Kissimmee River ecosystem. Structural improvements will include enlargements of existing canals and existing water control structures. The Kissimmee River project is addressing restoration of natural flooding of the floodplain to reestablish historic wetland conditions. Construction will include backfilling approximately 22 miles of the C-38 canal, excavating approximately 9 miles of new river channel, and the removing 2 water control structures and locks in the backfilled sections. The project will also include acquisition of fee title for lands within the 5-year-floodplain and acquisition of flowage easements for lands between the five-year-flood line and the 100-year-flood line.

AUTHORIZATION: Water Resources Development Acts of 1988 (Section 46) and 1992 (Section 101).

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable

TOTAL BENEFIT - COST RATIO: Not applicable

INITIAL BENEFIT - COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST FED COST	STATUS (1Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	265,600,000		Lands and Damages	42	Sep 2001
			Relocations - Bridges	0	Being determined
			Channels and Canals	8	Being determined
			Flood Control Structures	29	Being determined
Estimated Non-Federal Cost	265,600,000		Entire Project	24	Being determined
Cash Contributions	73,412,000				
Other Costs	192,188,000				
Total Estimated Project Cost	531,200,000				
Allocations to 30 September 2000	65,771,000				
Conference Allowance for FY 2001	20,000,000				
Allocation for FY 2001	26,761,000	1/			
Allocations through FY 2001	92,532,000	35%			
Allocation Requested for FY 2002	25,846,000	45%			
Programmed Balance to Complete After FY 2002	147,222,000				
Unprogrammed Balance to Complete After FY 2002	0				

1/ Reflects \$3,200,000 reduction assigned as savings and slippage, \$10,000,000 reprogrammed to the project, and \$39,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

# PHYSICAL DATA

Relocations - (Bridges)	2
Canals - Miles Backfilled	22
Canals - New River Channel	9
Water Control Structures Removal	2

JUSTIFICATION: Local water resource development of the Kissimmee River began in the late 1800's. In the 1960's, the river was channelized as part of the comprehensive Central and Southern Florida Project. Although the project has provided continuing navigation and effective flood control, it also resulted in long-term degradation of the natural ecosystem. The 103 mile river that historically meandered across and inundated about 35,000 acres of wetlands over a broad flood plain was reduced to a 56 mile canal that has successfully contained almost all flows since its completion. The channelization coupled with the modifications of the Lower Basin tributary watersheds and efficient control of flood waters and regulation of inflows from the Upper Basin significantly altered hydrologic characteristics of the ecosystem.

Project formulation and scoping was not based on traditional economic benefit-cost analyses and net benefit optimization; rather the plan was based on the most cost effective plan which would meet fish and wildlife resources objectives for restoring ecological integrity. As a result, project construction will result in the restoration of 52 miles of river; 27,000 acres of wetlands; improved water quality characteristics for the Kissimmee River; and restored conditions for over 300 fish and wildlife species.

FISCAL YEAR 2002: The requested amount of \$25,846,000 will be applied as follows:

Continue construction of channels, canals, and floodway control structures	\$ 16,412,000
Planning, Engineering, and Design/Monitoring	7,250,000
Construction Management	<u>2,184,000</u>
Total	25,846,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide; with credit toward the non-Federal 50 percent share of project costs;all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 178,717,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	18,988,000	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	<u>67,895,000</u>	
Total Non-Federal Costs	265,600,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement reflecting the cost sharing outlined in House Document 102-286 dated April 7, 1992 was executed with the South Florida Water Management District (SFWMD) in March 1994. The local sponsor will be required to provide a cash contribution of 11.4% (reflecting credit for lands, easements, rights of way, relocations, and disposal areas) of construction costs. A schedule has been developed for cash contributions which takes into account the value of the local sponsor's investment in lands and relocations, thus requiring the initial local sponsor cash contribution in Fiscal Year 2004 for expenditure in Fiscal Year 2005.

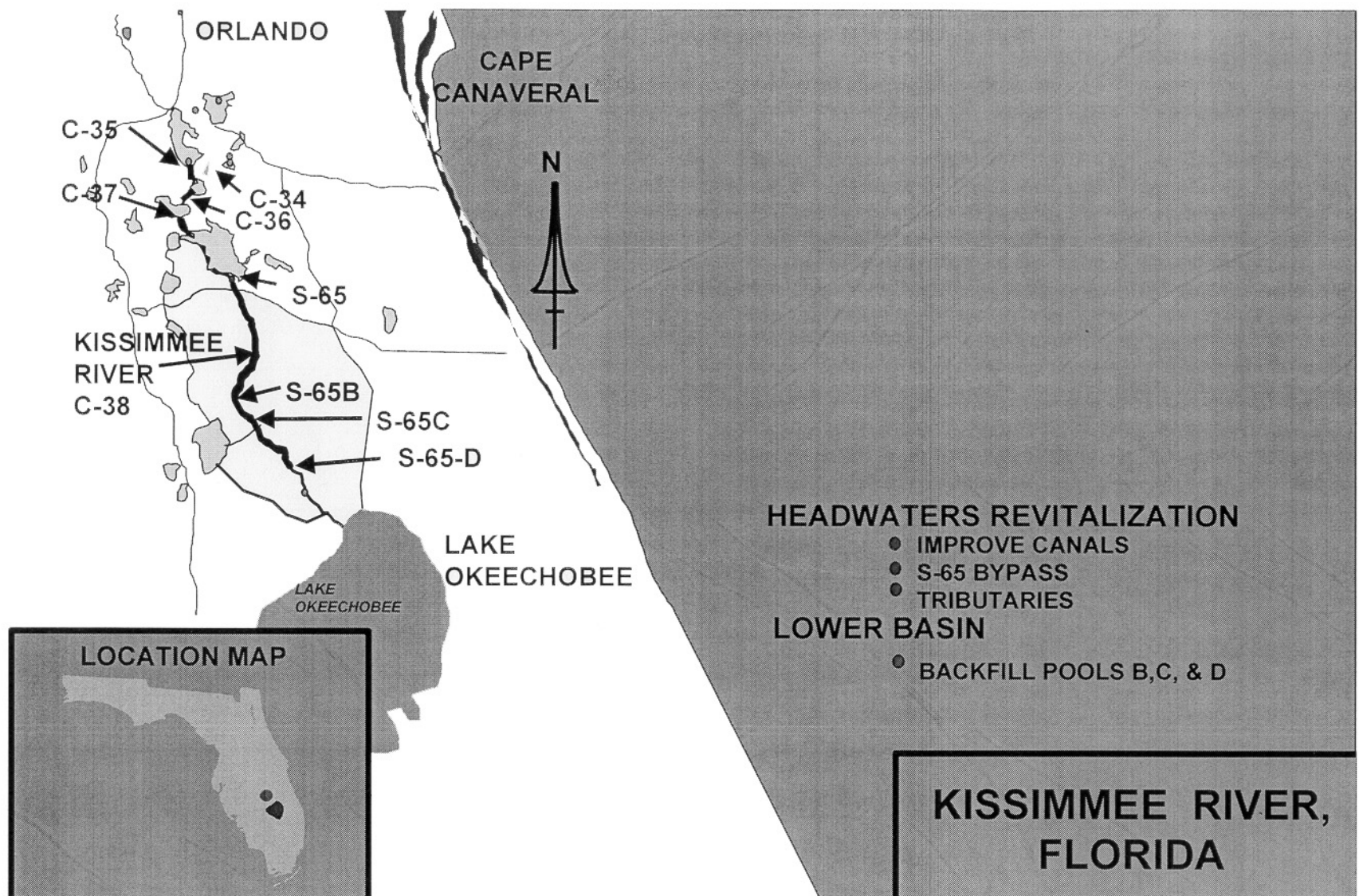
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$265,600,000 is an increase of \$40,800,000 from the latest estimate (\$224,800,000) submitted to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$(80,087,000)
Post Contract Award and Other Estimating Adjustments (including contingency adj)	42,314,000
Schedule Changes	52,973,000
Authorized Modification	<u>25,600,000</u>
Total	\$ 40,800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with CEQ on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

OTHER INFORMATION: Funds to initiate preconstruction planning were allocated in Fiscal Year 1992. Funds to initiate construction were allocated in Fiscal Year 1997.





APPROPRIATION: Construction, General - Multipurpose Project

PROJECT: Walter F. George Powerhouse and Dam, AL and GA (Major Rehabilitation) (Continuing)

LOCATION: Walter F. George Lock and Dam is located at mile 181.5 on the Chattahoochee River, 50 miles south of Columbus, Georgia, and about 84 miles southeast of Montgomery, AL. The navigation lock and gated spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to construct a concrete, cutoff wall upstream of the dam (powerhouse and spillway sections).

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 7 1/8 percent

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 2.5 to 1 at 7 1/8 percent (FY 2000)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report - Prevention of Potential Structural Failure approved in July 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			\$43,700,000	Entire Project	0	Being determined
Future Non-Federal Reimbursement			24,358,380			
Estimated Federal Cost (Ultimate)			19,341,620			
Estimated Non-Federal Cost			24,358,380			
Cash Contributions		\$ 0				
Other Costs		\$ 0				
Reimbursements		\$24,358,380				
Power	\$24,358,380					
Total Estimated Project Cost			43,700,000			
Allocations to 30 September 2000			743,000			
Conference Allowance for FY 2001			3,000,000			
Allocation for FY 2001			614,000	1/		
Allocation through FY 2001			1,357,000		3	
Allocation Requested for FY 2002			12,325,000		28	
Programmed Balance to Complete After FY 2002			30,018,000		100	
Unprogrammed Balance to Complete after FY 2002			0			

1/ Reflects \$480,000 reduction assigned as savings and slippage, \$1,900,000 reprogrammed from the project, and \$5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA: Construct a 2040-linear foot, concrete, cutoff wall upstream of the dam (powerhouse and spillway).

JUSTIFICATION: The Walter F. George Project has a chronic underground seepage problem which could impact the integrity of the dam (powerhouse and spillway). Numerous attempts to plug up the sinkholes as they appear using Operation and Maintenance funds have been unsuccessful or marginally successful. The potential for structural failure requires the construction of the cutoff wall to prevent further undermining and failure of the project structures. Average annual benefits are as follows:

Annual Benefits	Amount
Non-recreation	\$ 3,675,000
Recreation	\$ 4,604,000
Total	\$ 8,279,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$11,570,000
Planning, Engineering & Design	56,000
Construction Management	<u>699,000</u>
Total	12,325,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction And Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Requirements of Local Cooperation		
Capital Cost allocated to power	\$24,358,380	\$ 0
Total Non-Federal Costs	\$24,358,380	\$ 0

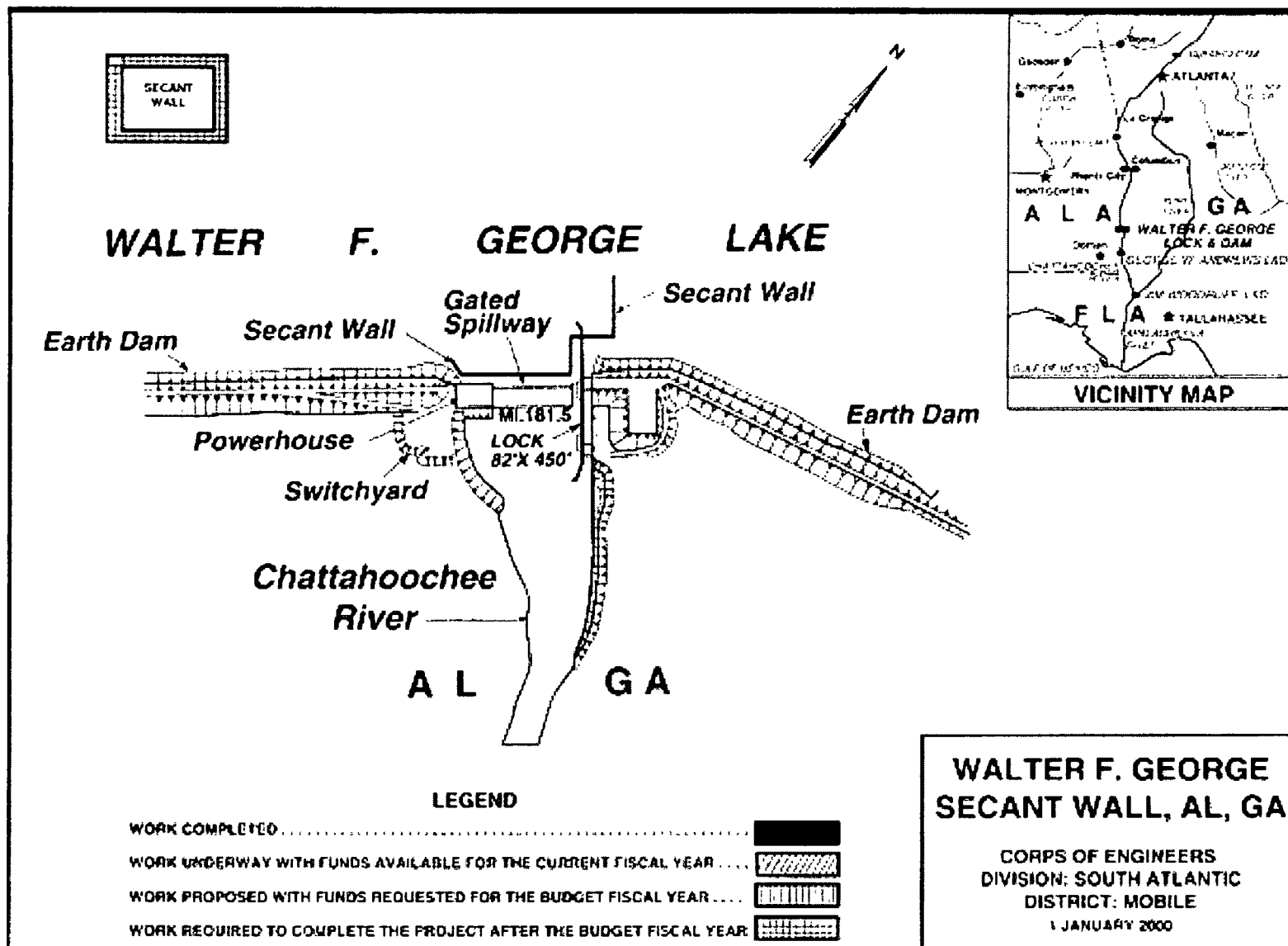
STATUS OF LOCAL COOPERATION . Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$43,700,000 is an increase of \$5,000,000 from the latest estimate (\$38,700,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 610,000
Post Contract Award and Other Estimating Adjustments	<u>4,390,000</u>
Total	5,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies/public concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency/public comments were then incorporated into the final EA and FONSI, which were signed on 7 March 1997. To provide for a wider review of the document, an additional 30 day comment period was afforded the public (via legal notices placed in local newspapers) starting on 17 March and ending on 18 April 1997. No comments were received during this period.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1999.



Division: South Atlantic

District: Mobile

Walter F. George Powerhouse and Dam, AL & GA

3 April 2001

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APPROPRIATION: Construction, General - Multiple Purpose Power

PROJECT: Walter F. George Powerplant, AL & GA (Major Rehabilitation), (Continuing)

LOCATION Walter F. George Lock and Dam is located at mile 181.5 on the Chattahoochee River, 50 miles south of Columbus, Georgia, and about 84 miles southeast of Montgomery, AL. The navigation lock and gated spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to refurbish the four turbines, replace exciters with solid state (static) exciters and rewind the four generators.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 1.2 to 1 at 7 3/4 percent.

TOTAL BENEFIT-COST RATIO: 1.01 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in August 1995 at October 1994 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		\$31,200,000	Entire Project	16	Being determined
Future Non-Federal Reimbursement		31,200,000			
Estimated Federal Cost (Ultimate)		0			
Estimated Non-Federal Cost		31,200,000			
Cash Contributions	\$ 0				
Other Costs	0				
Reimbursements	31,200,000				
Power	\$31,200,000				
Total Estimated Project Cost		31,200,000			
Allocations to 30 September 2000		5,328,000			
Conference Allowance for FY 2001		2,495,000			
Allocation for FY 2001		2,095,000	1/		
Allocation through FY 2001		7,423,000	24		
Allocation Requested for FY 2002		3,000,000	33		
Programmed Balance to Complete After FY 2002		20,777,000	100		
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$400,000 reduction assigned as savings and slippage and \$5,000 rescinded  
accordance with the Consolidated Appropriations Act, 2001.

#### PHYSICAL DATA:

- Rewind 4 generators
- Replace exciters for 4 generators
- Refurbish 4 turbines

JUSTIFICATION: The Walter F. George Powerhouse has experienced notable wear and deterioration levels since the early 1970's. The reliability has degraded faster than expected because of increased recurring cavitation problems as well as partial failure of generator coils as they approach 31 years of their 35-year life expectancy. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Average annual benefits for the major rehabilitation project are \$3,051,000.

Division: South Atlantic

District: Mobile

Walter F. George Powerplant, AL & GA

3 April 2001

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FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$ 2,630,000
Planning, Engineering, & Design	185,000
Construction Management	<u>185,000</u>
 TOTAL	 \$ 3,000,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual, Operation, Maintenance, and Replacement Costs
Requirements of Local Cooperation		
Capital Cost allocated to power	\$31,200,000	\$ 0
Total Non-Federal Costs	\$31,200,000	\$ 0

STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$31,200,000 is the same as the latest estimate (\$31,200,000) presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency comments were then incorporated into the final EA and FONSI, signed on 1 March 1995.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1997. Walter F. George has a chronic underground seepage problem which could impact the integrity of the dam and powerhouse. Numerous attempts over the last few years to solve the problem using O&M funds have been unsuccessful. A major rehabilitation report was prepared which included a detailed analysis of alternatives developed by a panel of independent consultants. Recommendations resulted in a separate major rehabilitation project.

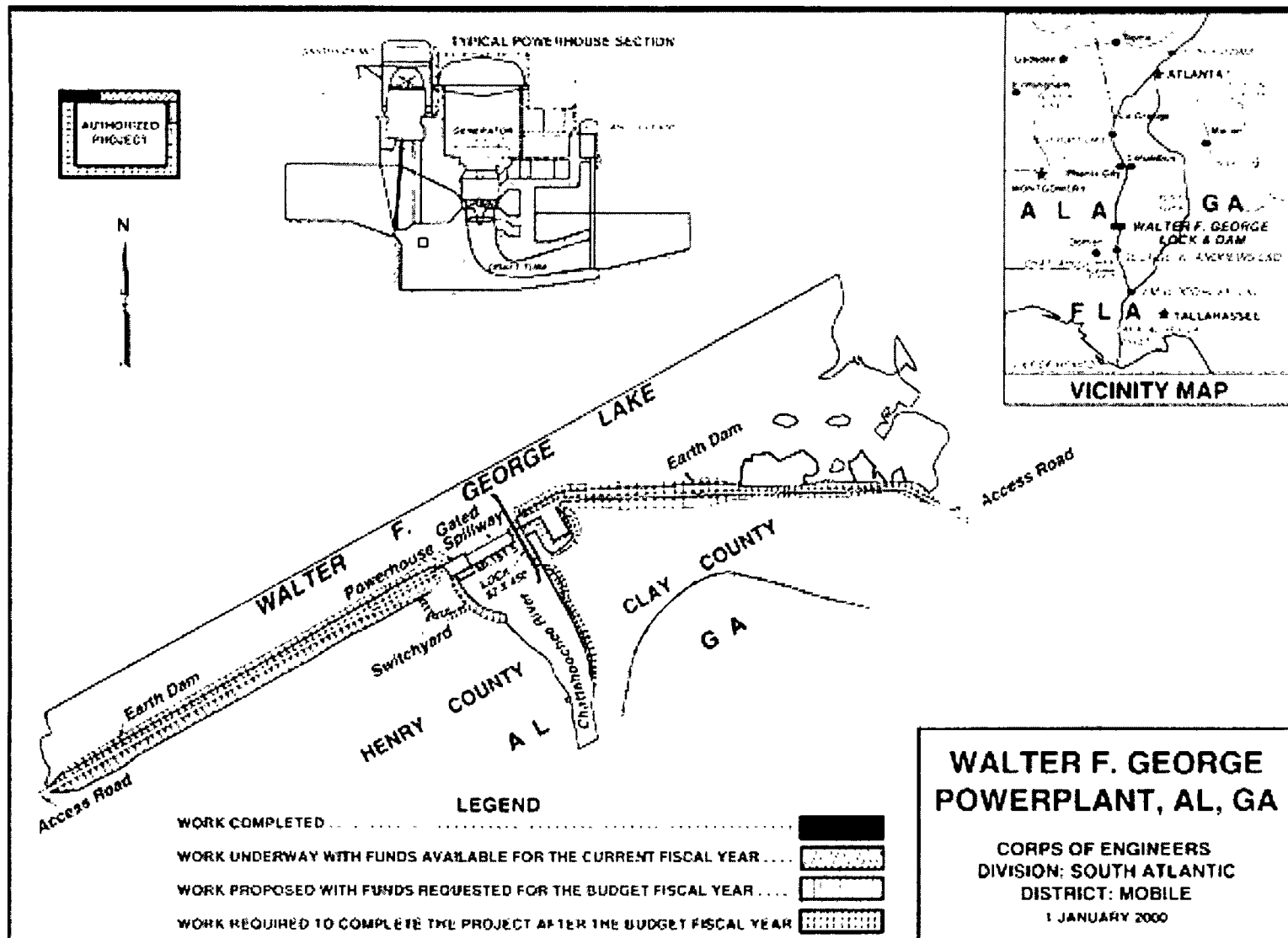
Division: South Atlantic

District: Mobile

Walter F. George Powerplant, AL & GA

3 April 2001

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Division: South Atlantic

District: Mobile

Walter F. George Powerplant, AL & GA

3 April 2001

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APPROPRIATION: Construction, General - Multiple Purpose Power

PROJECT. Jim Woodruff Powerhouse, FL & GA (Major Rehabilitation) (Continuing)

LOCATION: Jim Woodruff Lock and Dam is located at mile 106.4 on the Apalachicola River, 37 miles northwest of Tallahassee, Florida, in Jackson and Gadsden Counties, Florida. The navigation lock and fixed crest spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to replace the three turbines and rewind the three generators. The plan also includes the replacement of several peripheral electrical components, most notably the transformers.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 3.3 to 1 at 8 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 8 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in August 1993 at October 1993 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
				\$29,800,000	Entire Project	61	Being determined
				29,800,000			
Entire Project	61	Being		0			
determined				29,800,000			
Estimated Total Appropriation							
Requirement			\$ 0				
Future Non-Federal Reimbursement			0				
Estimated Federal Cost (Ultimate)			29,800,000				
Estimated Non-Federal Cost							
Cash Contributions				29,800,000			
Other Costs							
Reimbursements				17,466,000			
Power	\$29,800,000			4,500,000			
Total Estimated Project Cost				4,771,000	1/		
				22,237,000	75		
Allocations to 30 September 2000				4,300,000	89		
Conference Allowance to FY 2001				3,263,000	100		
Allocation for FY 2001				0			
Allocation through FY 2001							
Allocation Requested for FY 2002							
Programmed Balance to Complete After FY 2002							
Unprogrammed Balance to Complete After FY 2002							

1/ Reflects \$720,000 reduction assigned as savings and slippage, \$1,000,000 reprogrammed to the project and \$9,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA:

Replace main transformers  
Rewind 3 generators  
Replace 3 turbines including items listed below:  
Runner  
Shaft  
Wicket gate bushings  
Governor  
Piping

JUSTIFICATION: The Jim Woodruff Powerhouse has experienced a decaying reliability level since the early 1970's. Contributing factors in the reliability decline are welded turbine blades, age and tailwater degradation that has increased hydraulic head and decreased submergence on the turbines. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Continued operation of Jim Woodruff powerhouse in its deteriorated state without rehabilitation, has an impact on total power production costs in North Florida amounting to \$3.5 million per year. Average annual benefits for the major rehabilitation project are \$3,541,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$3,950,000
Planning, Engineering & Design	50,000
Construction Management	<u>300,000</u>
 TOTAL	 \$4,300,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual, Operation, Maintenance, and Replacement Costs
Requirements of Local Cooperation		
Capital Cost allocated to power	\$29,800,000	0
Total Non-Federal Costs	\$29,800,000	0

STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$29,800,000 is a decrease of \$800,000 from the latest estimate (\$30,600,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments (Including Contingency Adjustments)	-\$800,000
Total	-\$800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The draft EA contained a biological assessment (BA), as required under the Endangered Species Act of 1973, which concluded with a determination of no adverse effect on the Gulf of Mexico sturgeon, a threatened species which occurs in the tailrace area. The draft EA, containing the BA, concluded with a Finding of No Significant Impact (FONSI). The Draft EA and FONSI were fully coordinated with the public and State and Federal agencies. The U.S. Fish and Wildlife Service (USFWS) concurred with the BA determination of no adverse effect on the sturgeon. The State of Florida determined the project to be consistent with the State Coastal Zone Management Program. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the draft environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which was signed on 1 March 1993.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.

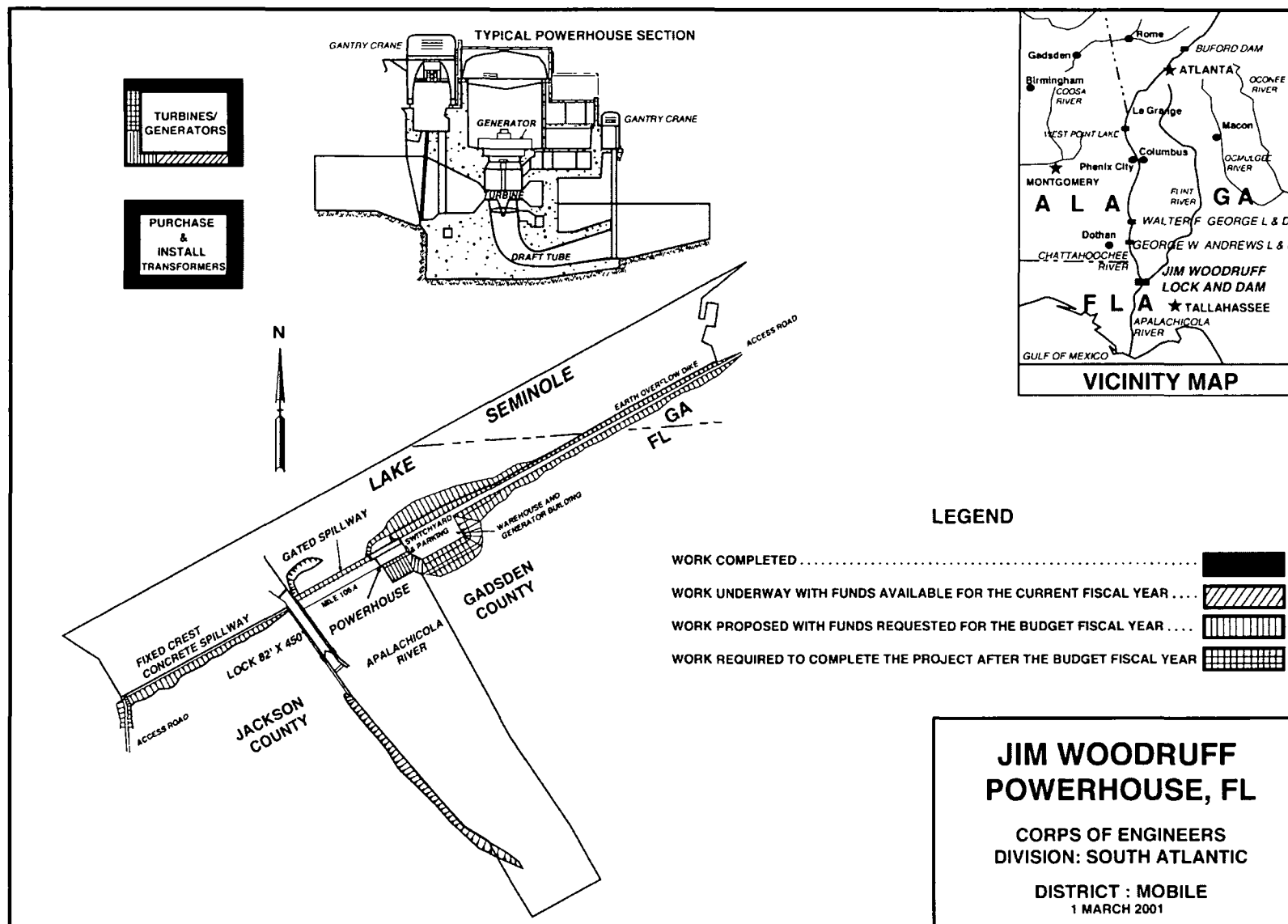
Division: South Atlantic

District: Mobile

Jim Woodruff Powerhouse, FL & GA

3 April 2001

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APPROPRIATION: Construction, General - Hydropower (Major Rehabilitation)

PROJECT: Buford Powerhouse, GA (Major Rehabilitation) (Continuing)

LOCATION: The Buford Dam is located at mile 455 on the Chattahoochee River, 50 miles northeast of Atlanta, Georgia. Buford is a multiple purpose project for flood control, hydropower, recreation, and water supply. Power installation consists of two units of 40,000 kilowatts each and one small unit of 6,000 kilowatts (86,000 kw total)

DESCRIPTION: The plan of improvement is to replace the three turbines and the exciters, and rewind the three generators.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 2.4 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in July 1996 at October 1995 price levels.



SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
			Entire Project	10	Being determined
Estimated Total Appropriation Requirement		\$27,200,000			
Future Non-Federal Reimbursement		27,200,000			
Estimated Federal Cost (Ultimate)		0			
Estimated Non-Federal Cost		27,200,000			
Cash Contributions	\$ 0				
Other Costs	0				
Reimbursements	27,200,000				
Power	\$27,200,000				
Total Estimated Project Cost		27,200,000			
Allocations to 30 September 2000		3,196,000			
Conference Allowance for FY 2001		2,455,000			
Allocation for FY 2001		4,123,000	1/		
Allocation through FY 2001		7,319,000	27		
Allocation Requested for FY 2002		3,000,000	38		
Programmed Balance to Complete After FY 2002		16,881,000	100		
Unprogrammed Balance to Complete after FY 2002		0			

1/ Reflects \$393,000 reduction assigned as savings and slippage, \$2,066,000 reprogrammed to the project and \$5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA:

- Rewind 3 generators
- Replace exciters with static exciters
- Replace 3 turbines with redesigned turbines based on current hydrology

Division: South Atlantic

District: Mobile

Buford Powerhouse, GA

3 April 2001

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JUSTIFICATION: The Buford Powerhouse units are 38 years old and exhibit the deterioration and wear normally expected for units of such age. Contributing factors in the reliability decline in addition to age of the units are that the generator stator coils in the two main units have decayed greatly, and the turbines are experiencing both increased recurring and progressive cavitation problems. These assessments of the Buford units, which have surpassed the mean life expectancy of 35 years, support the concern that the end of their useful life is eminent. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Average annual benefits to the major rehabilitation project are \$2,894,000.

FISCAL YEAR 2002: The requested amount will be applied in FY 2002 as follows.

Continue Construction	\$ 2,560,000
Planning, Engineering, & Design	200,000
Construction Management	<u>240,000</u>
<b>TOTAL</b>	<b>\$ 3,000,000</b>

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual, Operation, Maintenance, and Replacement Costs
Requirements of Local Cooperation		
Capital Cost allocated to power	\$27,200,000	\$ 0
Total Non-Federal Costs	\$27,200,000	\$ 0

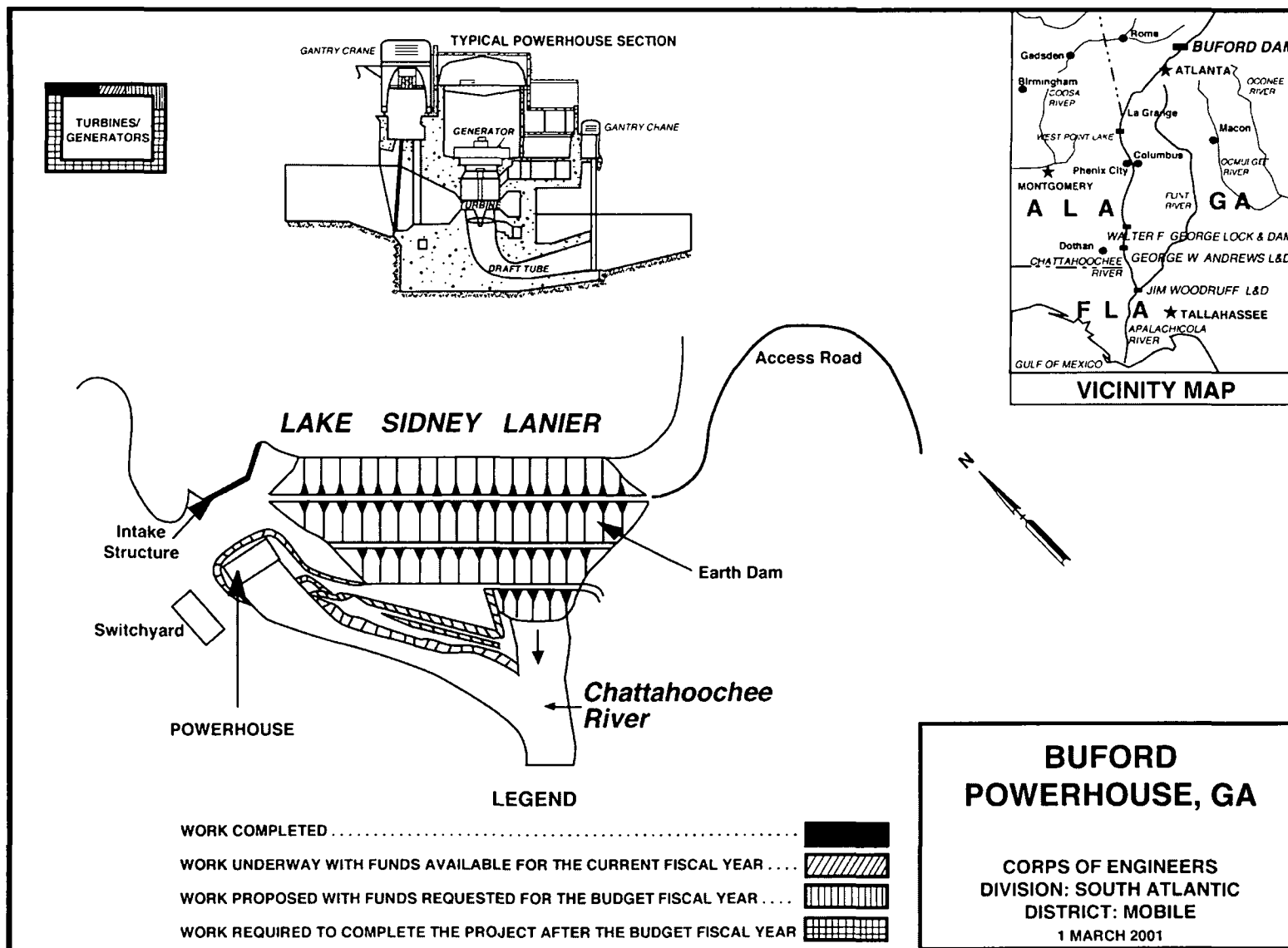
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$27,200,000 is a decrease of \$6,500,000 from the latest estimate (\$33,700,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	-\$6,500,000
Total	-\$6,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which was signed on 7 March 1996.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1998.



APPROPRIATION TITLE: Construction, General – Multiple Purpose Power

PROJECT: Hartwell Lake Powerhouse, Georgia and South Carolina (Major Rehabilitation) (Continuing)

LOCATION. The project is located on the Savannah River, 89 miles north of Augusta, Georgia and 305 miles north of the mouth of the river.

DESCRIPTION: The recommended plan involves the rewinding of four generator units, the refurbishment of the turbines, and the replacement of key electrical/mechanical peripheral equipment to improve the overall reliability of the project, to reduce operation and maintenance costs, and to reduce unscheduled repair costs. All work is programmed.

AUTHORIZATION: Flood Control Act approved 17 May 1950 and Flood Control Act approved 3 July 1958.

REMAINING BENEFIT - REMAINING COST RATIO: 19.0 to 1 at 8 percent.

TOTAL BENEFIT - COST RATIO: 1.81 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 3.1 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available Evaluation Report for New Major Rehabilitation forwarded to HQUSACE in July 1993 at 1993 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	31,000,000		Entire Project	80	Being determined
Future Non-Federal Reimbursement	31,000,000				
Estimated Federal Cost (Ultimate)	0				
Estimated Non-Federal Cost					
Cash Contributions	0				
Reimbursements	31,000,000				
Unprogrammed Construction					
Cash Contributions	0				
Other Costs	0				
Total Estimated Project Cost	31,000,000				
Allocations to 30 September 2000	25,272,000				
Conference Allowance for FY 2001	0				
Allocation for FY 2001	328,000	1/			
Allocations through FY 2001	25,600,000			83	
Allocation Requested for 2002	4,500,000			97	
Programmed Balance to Complete after FY 2002	900,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$328,000 reprogrammed to the project.

# PHYSICAL DATA

Rewind Generators	4
Refurbish Turbines	4
Replace Peripherals	4

JUSTIFICATION: The Hartwell Powerplant, which was initially placed into operation in 1962, has, over recent years, suffered from frequent unanticipated powerplant shutdowns, an increased level of O&M costs for repair and routine maintenance, and a general decrease in hydropower capacity and power production. These problems have been linked to a once acceptable practice of running the generators for extended periods of time at levels well past their rated capacity which was necessary to provide power needs. The proposed plan of improvement will replace the windings of four generators to state-of-the-art condition and replace key turbine and electrical/mechanical components to allow an increase in hydropower capacity to be made available to the power marketing agencies. The plan of improvement will arrest the further degradation of the hydroelectric units, decrease operation and maintenance costs, improve the powerplant's overall reliability and increase the power generation capability. Average annual benefits for hydroelectric power are \$3,354,600.

FISCAL YEAR 2002: The requested amount of \$4,500,000 will be applied as follows:

Continue rehabilitation of Powerplant	3,950,000
Planning, Engineering and Design	200,000
Construction Management	350,000
<b>Total</b>	<b>\$4,500,000</b>

NON-FEDERAL COST: The costs allocable to power are reimbursable and will be reviewed and adjusted based on construction costs as the project becomes operational. As applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities.	30,000,000	120,000
<b>Total Non-Federal Costs</b>	<b>30,000,000</b>	<b>120,000</b>

Division: South Atlantic

District: Savannah

Hartwell Lake Powerhouse, GA & SC

3 April 2001

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STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower cost rests with the Southeastern Power Administration pursuant to Federal laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$31,000,000 is an increase of \$10,200,000 over the latest estimate (\$20,800,000) submitted to Congress (FY 2001). This change includes the following items:

Item	Amount
Authorized Modifications	\$7,600,000
Design Changes	2,600,000
Total	\$10,200,000

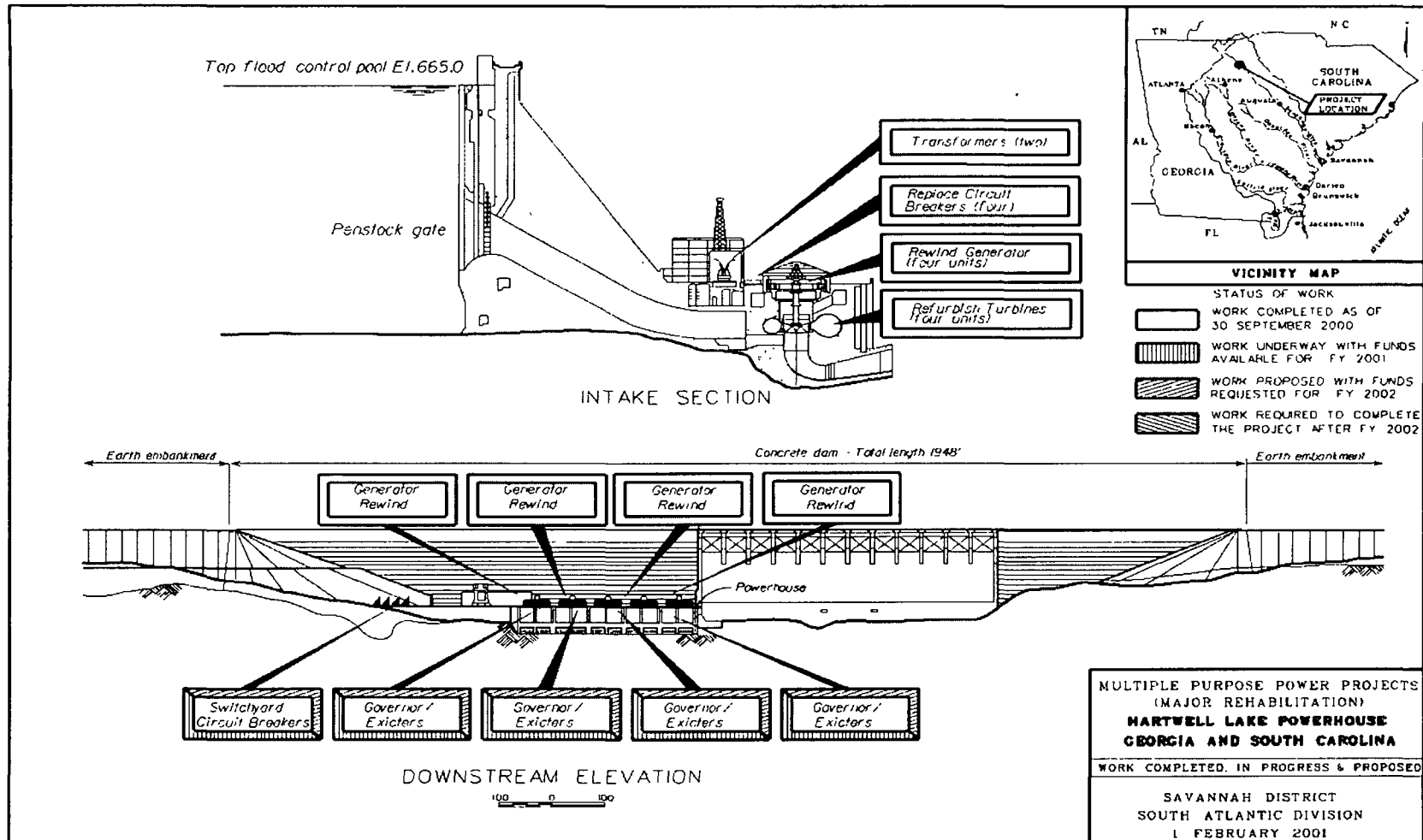
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Based on the environmental analysis contained in the Evaluation Report dated July 1993, an Environmental Assessment with a FONSI has been completed and is contained in the FY 1995 Major Rehabilitation Program, Hartwell Powerplant Evaluation Report.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.



CORPS OF ENGINEERS

U.S. ARMY



Division: South Atlantic

District: Savannah

Hartwell Lake Powerhouse, GA & SC

3 April 2001

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APPROPRIATION TITLE: Construction, General – Multiple Purpose Power

PROJECT: Thurmond Lake Powerhouse, Georgia and South Carolina (Major Rehabilitation) (Continuing)

LOCATION: The project is located on the Savannah River, 22 miles north of Augusta, Georgia and 216 miles north of the mouth of the river.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units, the replacement of the turbine rotating parts, and the refurbishment or replacement of key peripheral equipment in order to improve the overall reliability of the project, to reduce operation and maintenance costs, to reduce unscheduled repair costs, and to provide additional hydropower capacity, power revenues and environmental improvements. All work is programmed.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT - REMAINING COST RATIO: 2.3 to 1 at 8 percent.

TOTAL BENEFIT - COST RATIO: 1.3 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available Evaluation Report for New Major Rehabilitation Project forwarded to HQUSACE in March 1994 at February 1994 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	69,700,000		Entire Project	40	Being determined
Future Non-Federal Reimbursement	69,700,000				
Estimated Federal Cost (Ultimate)	0				
Estimated Non-Federal Cost					
Cash Contributions	0				
Reimbursements	69,700,000				
Unprogrammed Construction					
Cash Contributions	0				
Other Costs	0				
Total Estimated Project Cost	69,700,000				
Allocations to 30 September 2000	25,775,000				
Conference Allowance for FY 2001	5,000,000				
Allocation for FY 2001	3,490,000	1/			
Allocations through FY 2001	29,265,000			42	
Allocation Requested for 2002	6,500,000			51	
Programmed Balance to Complete after FY 2002	33,935,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$800,000 reduction assigned as savings and slippage, \$700,000 reprogrammed from the project, and \$10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

# PHYSICAL DATA

Rewind Generators	7
Replace Turbines	7
Replace Peripherals	7

JUSTIFICATION: The J. Strom Thurmond Powerplant, which was initially placed into operation in 1954, is showing signs of excessive wear of the generators, the peripheral equipment and the turbines. This has resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The proposed plan of improvement calls for rewinding the generators to maximum capacity, replacement of the turbine runner, and the replacement or refurbishment of key electrical/mechanical peripheral equipment. The plan of improvement will arrest the further degradation of the hydroelectric units, decrease operation and maintenance costs, improve the powerplant's overall reliability, and increase the power generation capability and partially restore some of the environmental impacts of the dam and powerplant. Average annual benefits for hydroelectric power are \$7,890,000.

FISCAL YEAR 2002: The requested amount of \$6,500,000 will be applied as follows:

Continue rehabilitation of Powerplant	5,850,000
Planning, Engineering and Design	100,000
Construction Management	550,000
Total	\$6,500,000

NON-FEDERAL COST: The costs allocable to power are reimbursable and will be reviewed and adjusted based on construction costs when the project becomes operational. The non-Federal sponsor must comply with the requirements listed below:

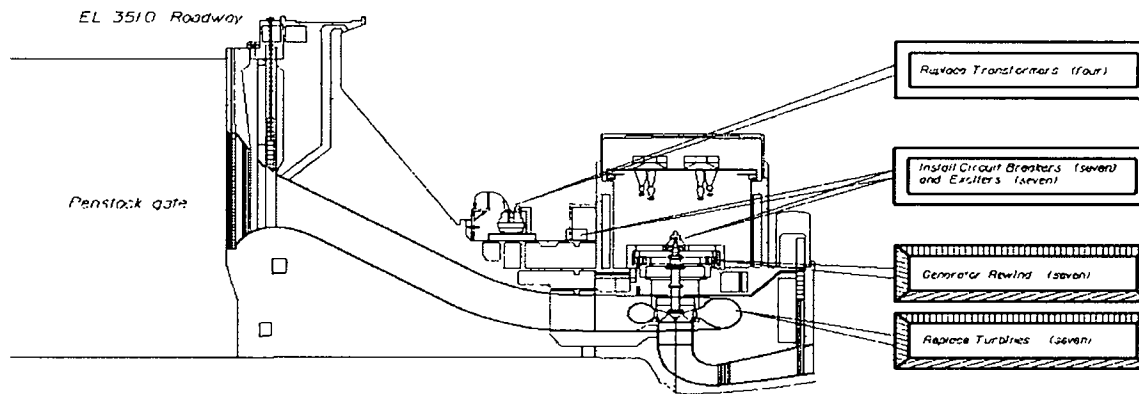
Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities.	69,700,000	485,000
Total Non-Federal Costs	69,700,000	485,000

STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower cost rests with the Southeastern Power Administration pursuant to Federal laws.

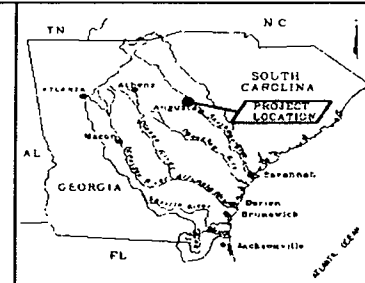
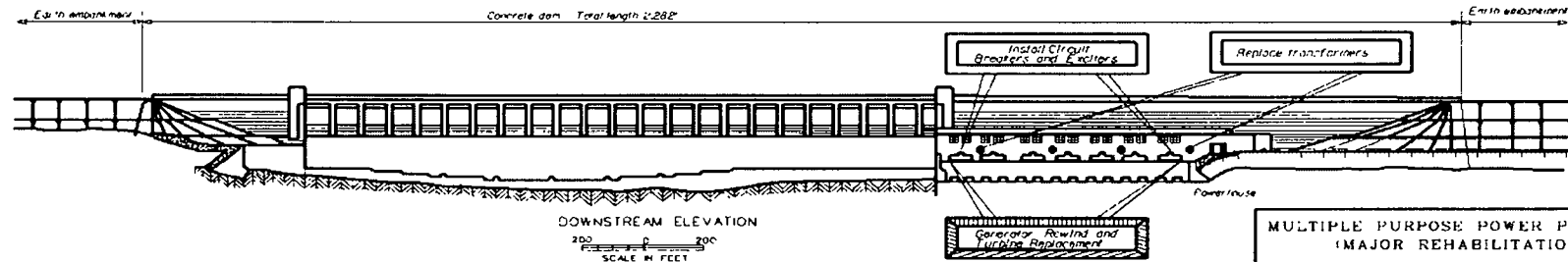
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$69,700,000 is the same as the latest estimate presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Based on the environmental analysis contained in the Evaluation Report dated March 1994, an Environmental Assessment with a FONSI has been completed and is contained in the FY 1996 Major Rehabilitation Program, J. Strom Thurmond Powerplant Evaluation Report.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.



INTAKE SECTION



VICINITY MAP

## STATUS OF WORK

- WORK COMPLETED AS OF 30 SEPTEMBER 2000
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2001
- WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002

**MULTIPLE PURPOSE POWER PROJECTS  
(MAJOR REHABILITATION)  
THURMOND LAKE POWERHOUSE  
GEORGIA AND SOUTH CAROLINA**

WORK COMPLETED IN PROGRESS & PROPOSED

SAVANNAH DISTRICT  
SOUTH ATLANTIC DIVISION  
1 FEBRUARY 2001

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: John H. Kerr Dam and Reservoir, VA & NC (Major Rehab)

LOCATION: The Kerr Powerhouse is located on the Roanoke River in Mecklenburg County, Virginia, 7 miles east of Boydton, Virginia, 80 air miles southwest of Richmond, Virginia, and 60 air miles north of Raleigh, North Carolina.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units to maximum capacity, refurbishment of the turbines, replacement of the main power transformers, and the replacement or refurbishment of key electrical and mechanical peripheral equipment in order to improve the overall reliability of the project, reduce operation and maintenance costs, reduce unscheduled repair costs, and provide additional hydropower capacity and power revenues.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO. 1.5 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7-1/8 percent.

INITIAL BENEFIT - COST RATIO: 1.4 to 1 at 7-1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluations contained in the Major Rehabilitation Evaluation Report addendum and transmittal memorandum dated June 1997, at October 1996 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$61,800,000		Entire Project	2	Being Determined
Future Non-Federal Reimbursement	\$61,800,000				
Estimated Non-Federal Cost (Ultimate)	\$ 0				
Cash Contributions	\$ 0				
Other Costs	\$ 0				
Reimbursements	\$61,800,000				
Power	\$61,800,000				
Total Estimated Project Cost	\$61,800,000				
Allocations to 30 September 2000	\$ 1,201,000				
Conference Allowance for FY 2001	4,000,000				
Allocation for FY 2001	3,352,000	1/			
Allocations through FY 2001	4,801,000	7			
Allocation Requested for 2002	\$4,800,000	15			
Programmed Balance to Complete after FY 2002	52,447,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/Reflects \$640,000 reduction assigned as savings and slippage and \$8,000 reduction for FY 2001 Omnibus Appropriations Act.

#### PHYSICAL DATA

Rewind Generator 7



JUSTIFICATION: The John H. Kerr Powerplant, which was initially placed into operation in 1953, is showing signs of excessive wear of the generators, the peripheral equipment and the turbines. This has resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The recommended plan of improvement calls for rewinding the generators to maximum capacity, refurbishment of the turbines, replacement of the main power transformers, and replacement or refurbishment of key electrical/mechanical peripheral equipment. The recommended plan will improve the powerplant's overall reliability, reduce further degradation of the hydroelectric units, decrease operation and maintenance costs, and increase the power generation capability. There is growing concern with project reliability due to recent malfunctions of oil circuit breakers in the switchyard, for which repair parts are no longer available and must be custom fabricated; frequent leaks in the raw water piping system, which is in extremely poor condition throughout; and the extremely heavy cavitation observed in the runner, stay ring and discharge ring of unit #5. Average annual benefits for hydroelectric power are \$6,633,700.

FISCAL YEAR 2002: The requested amount of \$4,800,000 will be applied as follows:

Rehabilitation of power plant	\$3,415,000
Planning, Engineering and Design	520,000
Construction Management	865,000
Total	\$4,800,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities	\$61,800,000	\$4,143,000

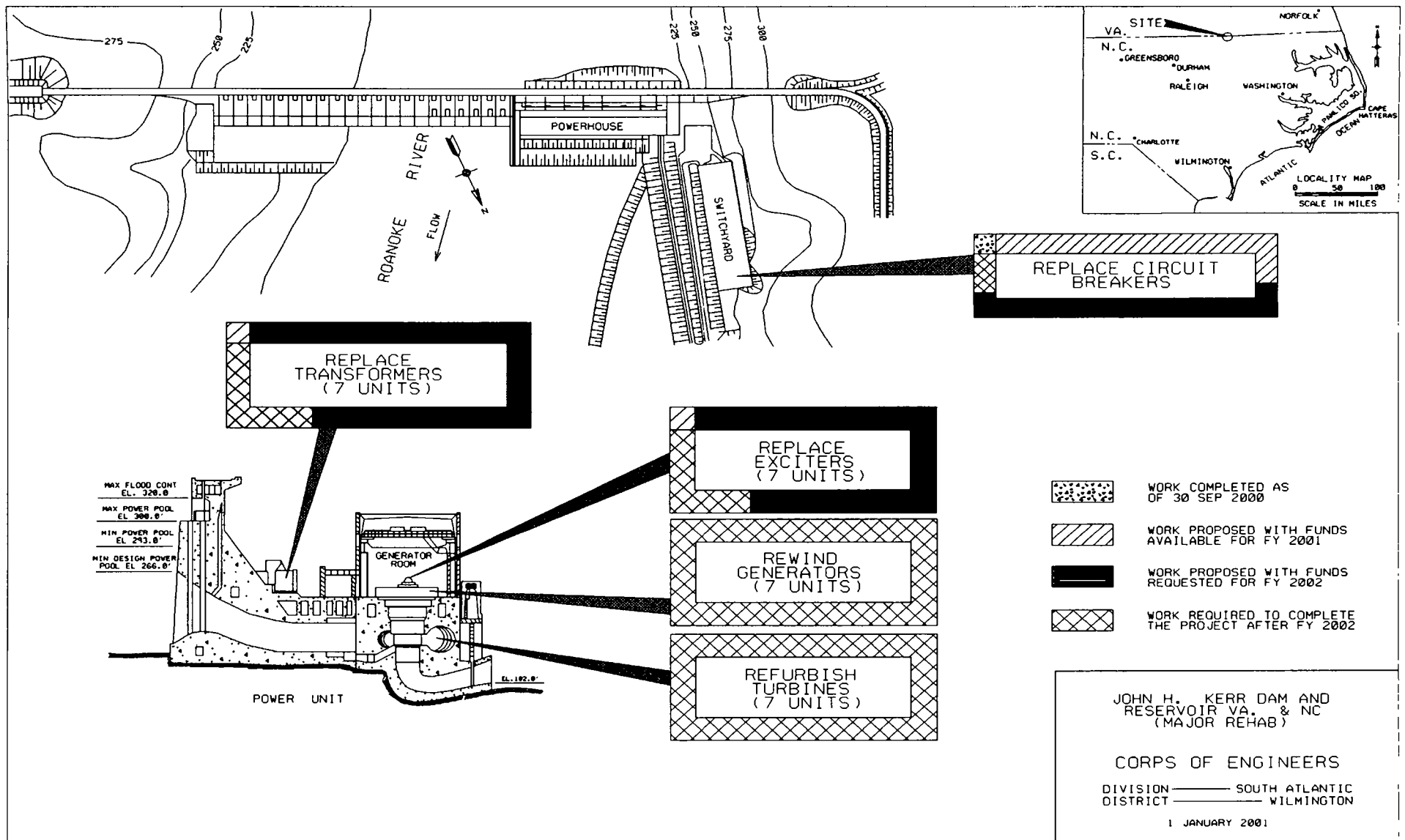
STATUS OF LOCAL COOPERATION: Pursuant to Federal Laws responsibility for repayment of hydropower costs rests with the power marketing agency, the Southeast Power Administration.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$61,800,000 is a decrease of \$500,000 from the latest estimate (\$62,300,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	-\$ 500,000
Design Changes	1,184,000
Post Contract Award and Other Estimating Adjustments	-1,184,000
Total	-\$ 500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was prepared and distributed in December 1996 for public comment. The Finding of No Significant Impact was signed by the District Engineer on 7 February 1997.

OTHER INFORMATION: None.



Division: South Atlantic

District: Wilmington

John H. Kerr Dam and Reservoir, VA & NC

3 April 2001

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SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation

a. Channels and Harbors

The program request of \$123,505,000 provides for essential work on 52 harbor and channel projects named in the list which follows. The work to be accomplished under this activity consists of maintaining the navigation channels and harbors and anchorages of coastal harbors and waterways by means of dredging, snagging, bank revetment, and operation and repair of navigation structures, all as authorized in the laws adopting river and harbor projects.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
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ALABAMA			
Bayou La Batre	1,999,000	50,000	
	(105,000)	(50,000)	1. Decrease in environmental studies.
	(1,894,000)	(0)	2. None.
Bon Secour River	0	20,000	
	(0)	(20,000)	1. Increase in environmental studies.
	(0)	(0)	2. None.
Dauphin Island Bay	60,000	250,000	
	(60,000)	(50,000)	1. Decrease in environmental studies and monitoring.
	(0)	(200,000)	2. None.
Dog and Fowl Rivers	66,000	450,000	
	(66,000)	(66,000)	1. None.
	(0)	(384,000)	2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Fly Creek	0	200,000	
	(0)	(0)	1. None.
	(0)	(200,000)	2. None.
Gulf Intracoastal	4,734,000	5,000,000	
Waterway (Mobile)	(322,000)	(333,000)	1. None.
	(4,412,000)	(4,667,000)	2. Dredging.
Mobile Harbor	18,665,000	18,900,000	
	(243,000)	(492,000)	1. Increase in environmental studies.
	(18,422,000)	(18,408,000)	2. Dredging.
FLORIDA			
Apalachicola Bay	0	300,000	
	(0)	(0)	1. None.
	(0)	(300,000)	2. None.
Canaveral Harbor	7,625,000	3,966,000	
	(643,000)	(718,000)	1. Increase in environmental studies.
	(6,982,000)	(3,248,000)	2. Dredging.

3 April 2001

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
East Pass	0	700,000	
	(0)	(66,000)	1. Increase in environmental studies and monitoring.
	(0)	(634,000)	2. Dredging.
Fernandina Harbor	2,705,000	3,037,000	
	(108,000)	(50,000)	1. Decrease in studies and surveys.
	(2,597,000)	(2,987,000)	2. Dredging.
Fort Pierce Harbor	1,051,000	49,000	
	(22,000)	(35,000)	1. Increase in real estate management.
	(1,029,000)	(14,000)	2. None.
Horseshoe Cove	0	520,000	
	(0)	(0)	1. None.
	(0)	(520,000)	2. Dredging.
IWW, Jacksonville to Miami	4,035,000	2,173,000	
	(563,000)	(513,000)	1. Decrease in studies and surveys.
	(3,472,000)	(1,660,000)	2. Dredging.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Jacksonville Harbor	7,755,000	4,040,000	
	(120,000)	(320,000)	1. Increase in studies and surveys.
	(7,635,000)	(3,720,000)	2. Dredging.
Manatee Harbor	3,080,000	20,000	
	(120,000)	(20,000)	1. Decrease in environmental studies and monitoring.
	(2,960,000)	(0)	2. None.
Miami Harbor	1,323,000	3,700,000	
	(118,000)	(0)	1. Decrease in studies and surveys.
	(1,205,000)	(3,700,000)	2. Dredging.
Palm Beach Harbor	4,577,000	3,253,000	
	(10,000)	(10,000)	1. None.
	(4,567,000)	(3,243,000)	2. Dredging.
Panama City Harbor	50,000	1,000,000	
	(50,000)	(30,000)	1. Decrease in studies and surveys.
	(0)	(970,000)	2. Dredging.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Pensacola Harbor	0	500,000	
	(0)	(500,000)	1. Increase in environmental studies and monitoring.
	(0)	(0)	2. None.
Ponce De Leon Inlet	46,000	2,032,000	
	(39,000)	(32,000)	1. Decrease in real estate management.
	(7,000)	(2,000,000)	2. Jetty Repair.
Port St Joe Harbor	0	500,000	
	(0)	(500,000)	1. Increase in environmental studies and monitoring.
	(0)	(0)	2. None.
Tampa Harbor	6,308,000	4,163,000	
	(147,000)	(300,000)	1. Increase in studies and surveys.
	(6,161,000)	(3,863,000)	2. Dredging.
Withlacoochee River	35,000	34,000	
	(1,000)	(0)	1. Decrease in real estate management.
	(34,000)	(34,000)	2. None.

3 April 2001



SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	<u>ESTIMATED</u>	<u>OBLIGATIONS</u>	
	<u>FY 2001 (\$)</u>	<u>FY 2002 (\$)</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
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GEORGIA			
AIWW (Savannah)	2,460,000	2,172,000	
	(252,000)	(262,000)	1. None.
	(2,208,000)	(1,910,000)	2. Dredging.
Brunswick Harbor	5,271,000	3,902,000	
	(420,000)	(350,000)	1. Decrease in studies and surveys.
	(4,851,000)	(3,552,000)	2. Dredging.
Savannah Harbor	13,869,000	12,911,000	
	(1,049,000)	(1,168,000)	1. Increase in environmental studies and monitoring.
	(12,820,000)	(11,743,000)	2. Dredging.
Savannah River	650,000	215,000	
Below Augusta	(119,000)	(131,000)	1. Increase in water management.
	(531,000)	(84,000)	2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
<b>MISSISSIPPI</b>			
Biloxi Harbor	801,000	30,000	
	(101,000)	(30,000)	1. Decrease environmental studies.
	(700,000)	(0)	2. None.
Gulfport Harbor	2,500,000	2,100,000	
	(323,000)	(335,000)	1. None.
	(2,177,000)	(1,765,000)	2. Dredging.
Pascagoula Harbor	3,406,000	4,200,000	
	(261,000)	(376,000)	1. Increase in environmental studies.
	(3,145,000)	(3,824,000)	2. Dredging.
<b>NORTH CAROLINA</b>			
AIWW (Wilmington)	5,831,000	2,391,000	
	(999,000)	(831,000)	1. Decrease in studies and surveys.
	(4,832,000)	(1,560,000)	2. Dredging.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Beaufort Harbor	350,000	35,000	
	(0)	(0)	1. None.
	(350,000)	(35,000)	2. None.
Bogue Inlet and Channels	627,000	1,267,000	
	(27,000)	(27,000)	1. None.
	(600,000)	(1,240,000)	2. Dredging.
Carolina Beach Inlet	1,430,000	1,060,000	
	(0)	(0)	1. None.
	(1,430,000)	(1,060,000)	2. Dredging.
Lockwoods Folly River	455,000	895,000	
	(0)	(0)	1. None.
	(455,000)	(895,000)	2. Dredging.
Manteo (Shallowbag) Bay	4,995,000	4,863,000	
	(183,000)	(288,000)	1. Increase in studies and surveys.
	(4,812,000)	(4,575,000)	2. Dredging.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Masonboro Inlet and Connecting Channel	45,000 (45,000) (0)	2,245,000 (45,000) (2,200,000)	1. None. 2. Dredging.
Morehead City Harbor	4,737,000 (200,000) (4,537,000)	4,450,000 (200,000) (4,250,000)	1. None. 2. Dredging.
New River Inlet	825,000 (0) (825,000)	1,235,000 (0) (1,235,000)	1. None. 2. Dredging.
New Topsail Inlet and Connecting Channels	610,000 (0) (610,000)	940,000 (0) (940,000)	1. None. 2. Dredging.
Pamlico and Tar Rivers	139,000 (0) (139,000)	139,000 (0) (139,000)	1. None. 2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Roanoke River	100,000	100,000	
	(0)	(0)	1. None.
	(100,000)	(100,000)	2. None.
Wilmington Harbor	8,405,000	5,105,000	
	(1,125,000)	(559,000)	1. Decrease in environmental studies and surveys.
	(7,280,000)	(4,546,000)	2. Dredging.
SOUTH CAROLINA			
AIWW (Charleston)	3,629,000	1,575,000	
	(142,000)	(105,000)	1. Decrease in environmental studies.
	(3,487,000)	(1,470,000)	2. Dredging.
Charleston Harbor	7,145,000	5,171,000	
	(235,000)	(318,000)	1. Increase in environmental studies.
	(6,910,000)	(4,853,000)	2. Dredging.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Cooper River, Charleston Harbor	3,235,000 (2,750,000) (485,000)	3,201,000 (2,366,000) (835,000)	1. Decrease in studies and surveys. 2. None.
Folly River	266,000 (9,000) (257,000)	748,000 (18,000) (730,000)	1. Increase in studies and surveys. 2. None.
Georgetown Harbor	5,234,000 (318,000) (4,916,000)	5,738,000 (345,000) (5,393,000)	1. Increase in studies and surveys. 2. Dredging.
Port Royal Harbor	21,000 (21,000) (0)	169,000 (169,000) (0)	1. Increase in environmental studies and surveys. 2. None.
Shipyard River	477,000 (15,000) (462,000)	486,000 (16,000) (470,000)	1. None. 2. None.

3 April 2001

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

a. Channels and Harbors (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Town Creek	398,000	305,000	
	(12,000)	(0)	1. Decrease in studies and surveys.
	(386,000)	(305,000)	2. None.
Projects Maintained	6,087,000	0	
Periodically	(127,000)	(0)	
	(5,960,000)	(0)	
TOTAL - Channels	148,112,000	123,505,000	
and Harbors	(11,470,000)	(12,044,000)	
	(136,642,000)	(111,461,000)	

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

b. Locks, Dams, and Canals

The program request of \$50,698,000 provides for the operational requirements of six canalized waterways. Requirements include: operation and ordinary maintenance of project facilities; labor, supplies, materials, and parts for day-to-day functioning; and periodic maintenance, repairs, and replacements.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
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ALABAMA			
Alabama-Coosa Rivers	5,355,000	1,555,000	
	(1,381,000)	(1,355,000)	1. None.
	(3,974,000)	(200,000)	2. None.
Black Warrior and Tombigbee Rivers	19,204,000	21,100,000	
	(5,836,000)	(6,124,000)	1. Increase in studies and surveys.
	(13,368,000)	(14,976,000)	2. Dredging.
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ALABAMA AND GEORGIA			
Apalachicola, Chattahoochee and Flint Rivers	5,055,000	1,237,000	
	(1,039,000)	(1,037,000)	1. None.
	(4,016,000)	(200,000)	2. None.



SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

b. Locks, Dams, and Canals (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
ALABAMA AND MISSISSIPPI			
Tennessee-Tombigbee	23,547,000	23,800,000	
Waterway	(11,621,000)	(11,310,000)	1. None.
	(11,926,000)	(12,490,000)	2. Dredging.
FLORIDA			
Apalachicola, Chattahoochee and Flint Rivers (see Alabama and Georgia)			
Okeechobee Waterway	5,811,000	2,520,000	
	(2,503,000)	(2,520,000)	1. None.
	(3,308,000)	(0)	2. None.
NORTH CAROLINA			
Cape Fear River	897,000	486,000	
above Wilmington	(513,000)	(486,000)	1. None.
	(384,000)	(0)	2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont.)

b. Locks, Dams, and Canals (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
<u>Project Name</u>	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
TOTAL - Locks, Dams, and Canals	59,869,000 (22,893,000) (36,976,000)	50,698,000 (22,832,000) (27,866,000)	
TOTAL - NAVIGATION	207,981,000 (34,363,000) (173,618,000)	174,203,000 (34,876,000) (139,327,000)	

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control

a. Reservoirs

The program request of \$8,637,000 provides for operation and maintenance of four reservoirs and for continuing the Alabama-Coosa River Comprehensive Water Study.

STATE	<u>ESTIMATED</u>	<u>OBLIGATIONS</u>	
	<u>FY 2001 (\$)</u>	<u>FY 2002 (\$)</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
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ALABAMA			
Alabama-Coosa River Comprehensive Water Study, AL	1,100,000 (1,100,000) (0)	219,000 (219,000) (0)	1. Decrease in environmental stewardship requirement. 2. None.
 MISSISSIPPI			
Okatibbee Lake	955,000 (606,000) (349,000)	1,584,000 (841,000) (743,000)	1. Increase in water control monitoring. 2. None.
 NORTH CAROLINA			
B. Everett Jordan Dam and Lake	1,500,000 (1,061,000) (439,000)	3,065,000 (1,147,000) (1,918,000)	1. None. 2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont.)

a. Reservoirs (Cont.)

STATE  <u>Project Name</u>	<u>ESTIMATED</u>	<u>OBLIGATIONS</u>	<u>Reason for Change and Major Maintenance Items</u>
	<u>FY 2001 (\$)</u> Total (Operations) (Maintenance)	<u>FY 2002 (\$)</u> Total (Operations) (Maintenance)	
			1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-). 2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Falls Lake	1,276,000 (982,000) (294,000)	1,516,000 (1,135,000) (381,000)	1. Increase in activities to sustain existing natural resources. 2. None.
W. Kerr Scott Dam and Reservoir	1,742,000 (1,191,000) (551,000)	2,253,000 (1,456,000) (797,000)	1. Increase in water management activities. 2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont.)

a. Reservoirs (Cont.)

Scheduled Reservoir Operations

The program request of \$130,000 provides for monitoring reservoir operations on the Alabama-Coosa River Basin, AL, and the Four River Basin, PR, including the Portugues and Bucana, PR, project.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
<b>ALABAMA</b>			
Scheduled Reservoir Operation	120,000 (120,000) (0)	80,000 (80,000) (0)	1. Decrease in analysis and studies. 2. None.
<b>FLORIDA</b>			
Scheduled Reservoir Operation	50,000 (50,000) (0)	50,000 (50,000) (0)	1. None. 2. None.
<b>TOTAL - Reservoirs</b>	<b>6,743,000</b> <b>(5,110,000)</b> <b>(1,633,000)</b>	<b>8,767,000</b> <b>(4,928,000)</b> <b>(3,839,000)</b>	

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont.)

b. Channel Improvements, Inspections, and Miscellaneous Maintenance

The program request of \$11,761,000 provides for the maintenance requirements of two local flood protection projects.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
<u>Project Name</u>	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
FLORIDA			
Central and	10,558,000	11,591,000	
Southern Florida	(6,563,000)	(6,682,000)	1. None.
	(3,995,000)	(4,909,000)	2. None.
MISSISSIPPI			
East Fork,	150,000	170,000	
Tombigbee River	(0)	(0)	1. None.
	(150,000)	(170,000)	2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont.)

b. Channel Improvements, Inspections, and Miscellaneous Maintenance (Cont.)

Inspection of Completed Works

The \$289,000 requested in FY 2002 supports inspection at 110 flood control projects constructed by the Corps and operated and maintained by non-Federal interests.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Alabama	50,000	100,000	
Florida	100,000	100,000	
Georgia	100,000	41,000	
North Carolina	22,000	22,000	
South Carolina	26,000	26,000	
Inspection of	298,000	289,000	
Completed Works	(298,000)	(289,000)	1. None.
	(0)	(0)	2. None.
TOTAL - Channel	11,006,000	12,050,000	
Improvements,	(6,861,000)	(6,971,000)	
Inspections, &	(4,145,000)	(5,079,000)	
Misc Maintenance			
TOTAL - FLOOD CONTROL	17,749,000	20,817,000	
	(11,971,000)	(11,899,000)	
	(5,778,000)	(8,918,000)	

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

3. Multiple Purpose Power

The program request of \$86,198,000 provides for the operation requirements of 13 multiple purpose projects. Requirements include: operation and ordinary maintenance of project facilities; labor, supplies, materials, and parts for day-to-day functioning; and periodic maintenance, repairs and replacements. The requested amount also includes application of special recreation use fees for recreation areas.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
<b>ALABAMA</b>			
Millers Ferry Lock and Dam - William "Bill" Dannelly Reservoir	4,999,000 (2,215,000) (2,784,000)	4,900,000 (2,399,000) (2,501,000)	1. None. 2. None.
Robert F. Henry Lock and Dam - R.E. "Bob" Woodruff Lake	4,962,000 (2,143,000) (2,819,000)	5,000,000 (2,273,000) (2,727,000)	1. None. 2. None.
Walter F. George Lock and Dam	7,373,000 (3,032,000) (4,341,000)	6,565,000 (2,864,000) (3,701,000)	1. None. 2. None.



SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

3. Multiple Purpose Power (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
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FLORIDA			
Jim Woodruff Lock and Dam	5,855,000	5,719,000	
	(3,178,000)	(3,254,000)	1. None.
	(2,677,000)	(2,465,000)	2. None.
 GEORGIA			
Allatoona Lake	4,520,000	5,427,000	
	(1,689,000)	(2,414,000)	1. Increase in environmental requirements.
	(2,831,000)	(3,013,000)	2. None.
Buford Dam - Lake Sidney Lanier	7,275,000	7,525,000	
	(3,527,000)	(3,455,000)	1. None.
	(3,748,000)	(4,070,000)	2. None.
Carters Lake	7,489,000	7,600,000	
	(2,368,000)	(2,451,000)	1. None.
	(5,121,000)	(5,149,000)	2. Repair of units.
Hartwell Lake	11,875,000	11,876,000	
	(5,442,000)	(5,678,000)	1. None.
	(6,433,000)	(6,198,000)	2. None.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

3. Multiple Purpose Power (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
J. Strom Thurmond Lake	10,585,000 (5,857,000) (4,728,000)	10,325,000 (5,992,000) (4,333,000)	1. None. 2. None.
Richard B. Russell Dam and Lake	6,190,000 (3,381,000) (2,809,000)	6,564,000 (3,966,000) (2,598,000)	1. Increase in environmental studies. 2. None.
Walter F. George L & D (see Alabama)			
West Point Lake	3,977,000 (1,977,000) (2,000,000)	4,865,000 (1,978,000) (2,887,000)	1. None. 2. None.
NORTH CAROLINA			
John H. Kerr Dam and Reservoir (see Virginia)			
SOUTH CAROLINA			
Hartwell Lake (see Georgia)			
J. Strom Thurmond Lake (see Georgia)			
Richard B. Russell (see Georgia)			

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

3. Multiple Purpose Power (Cont.)

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
<u>Project Name</u>	Total (Operations) (Maintenance)	Total (Operations) (Maintenance)	
<hr/>			
VIRGINIA			
John H. Kerr Dam and Reservoir	8,041,000 (5,465,000) (2,576,000)	10,013,000 (5,777,000) (4,236,000)	1. None. 2. None.
Philpott Lake	3,060,000 (1,644,000) (1,416,000)	3,865,000 (1,689,000) (2,176,000)	1. None. 2. None.
TOTAL - Multiple Purpose Projects	86,201,000 (41,918,000) (44,283,000)	90,244,000 (44,190,000) (46,054,000)	

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

4. Protection of Navigation

The program request of \$3,634,000 provides for accomplishing the work essential to the eradication of aquatic plant growth for navigable waters in Florida.

STATE  <u>Project Name</u>	<u>ESTIMATED</u>	<u>OBLIGATIONS</u>	<u>Reason for Change and Major Maintenance Items</u>
	<u>FY 2001 (\$)</u>	<u>FY 2002 (\$)</u>	
	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Removal of Aquatic Growth	3,340,000	3,634,000	
	(0)	(0)	1. None.
	(3,340,000)	(3,634,000)	2. Removal of aquatic growth.

SOUTH ATLANTIC DIVISION  
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

4. Protection of Navigation

Project Condition Surveys

The program request of \$1,059,000 provides for project condition surveys for navigation projects for which maintenance is not scheduled in the budget year.

STATE	ESTIMATED	OBLIGATIONS	
	FY 2001 (\$)	FY 2002 (\$)	Reason for Change and Major Maintenance Items
Project Name	Total	Total	
	(Operations)	(Operations)	1. Reason for Change in Operations from FY 01 to FY 02 (10%+/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 02 (Threshold \$500,000).
Alabama	350,000	350,000	
Florida	600,000	600,000	
North Carolina	64,000	64,000	
South Carolina	60,000	45,000	
Project Condition Surveys	1,074,000 (1,074,000) (0)	1,059,000 (1,059,000) (0)	1. None. 2. None.
TOTAL - Protection of Navigation	4,414,000 (1,074,000) (3,340,000)	4,693,000 (1,059,000) (3,634,000)	
GRAND TOTAL - SOUTH ATLANTIC DIVISION	316,345,000 (89,326,000) (227,019,000)	289,957,000 (92,024,000) (197,933,000)	